

Subject Index

Abatement and removal

- Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568
- Analysis of Overall Perchlorate Removal Rates in Packed-Bed Bioreactors, 487
- Assessment of Fate of Manganese in Oxide-Coated Filtration Systems, 570
- Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876
- Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591
- Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567
- Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447
- Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454
- Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446
- Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443
- Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540
- Precipitative Removal of Fluoride from Electronics Wastewater, 542
- Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473
- Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548
- SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441
- SBR System for Phosphorus Removal: Linear Model Based Optimization, 442
- Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461
- Thermally Enhanced Vapor Extraction for Removing PAHs from Lampblack-Contaminated Soil, 554
- Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480

Absorbers

- Analytical Study of Porous Wave Absorber, 316

Absorption

- Absorption of Aramid Prestressing Rods in Aggressive Solutions, 171
- Load Dampening System for Vapor Phase Bioreactors, 457
- Recovery and Marine Clay Stabilization of Heavy Metals Present in Spent Hydrotreating Catalysts, 544
- Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538
- Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539
- Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973

- Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410

Abutments

- Use of Vanes for Control of Scour at Vertical Wall Abutments, 741

Acceleration

- Nonstationary Random Critical Excitation for Acceleration Response, 340
- Vehicle Dynamics Model for Predicting Maximum Truck Acceleration Levels, 1307

Accelerators (Particles)

- Great Excavations, 1532

Accident data

- Rule-Based Model for Traffic Accident Visualization and Analysis, 187

Accident factors

- Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043
- Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320

Accident prediction

- Evaluating Safety of Urban Arterial Roadways, 1272

Accident prevention

- Development of Causal Model of Construction Accident Causation, 251
- Rental Cars Unique Accident Trends, 1275
- Technological Intervention to Eliminate Back Injury Risks for Nailing, 240

Accounting

- Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951

Accuracy

- Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231

Acid mine water

- Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

Acidic water

- Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

Acids

- Acidification of Lactose in Wastewater, 532
- Chromium (III) Isolation from Acid Extract of Tannery Sludge, 1460
- Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468
- Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500
- Investigations of Sulfuric Acid Corrosion of Concrete. II: Electrochemical and Visual Observations, 501

Acoustic measurement

- Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Acoustics

Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278

Acquisition

Improving Objectivity in Procurement Selection, 955

Activated carbon

Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568

Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541

Competitive Adsorption of Phenolic Compounds onto Activated Carbon Fibers in Fixed Bed, 519

Effects of Surface Characteristics of Activated Carbons on VOC Adsorption, 437

Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540

New General Pore Size Distribution Model by Classical Thermodynamics, Application: Activated Carbon, 464

Activated carbon treatment

Adsorption and Electrodialysis Desorption of Hazardous Organic Vapors, 456

Activated sludge

BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492

Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517

pH-Stat Titration to Assess Nitrification Inhibition, 515

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Activated sludge process

Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443

Active control

Multiobjective Optimal Structural Vibration Control Using Fuzzy Logic Control System, 1224

Neural Networks for Multiobjective Adaptive Structural Control, 1095

Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Adaptive systems

Gain-Scheduled Adaptive Control for Seismically Excited Hybrid Structures, 1219

Neural Networks for Multiobjective Adaptive Structural Control, 1095

Adhesive bonding

Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298

Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161

On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315

Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams, 1237

Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163

Adjustment

Automated Least Squares Adjustment of Triangulation-Trilateration Figures, 1252

Admixtures

Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023

Strength and Durability of Roller-Compacted HVFA Concrete Pavements, 1477

Adsorption

Adsorption and Electrodialysis Desorption of Hazardous Organic Vapors, 456

Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438

Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541

Competitive Adsorption of Phenolic Compounds onto Activated Carbon Fibers in Fixed Bed, 519

Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517

Cr(VI) Adsorption onto Hydrous Concrete Particles from Groundwater, 569

Effects of Surface Characteristics of Activated Carbons on VOC Adsorption, 437

Ion Exchange of Ammonium in Zeolites: A Literature Review, 512

Advection

Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425

Aeration

Field Experiments to Determine Gas Transfer at Gated Sills, 747

Nitrification/Denitrification in Intermittent Aeration Process for Swine Wastewater Treatment, 516

Oxygen Transfer at Low Drop Weirs, 504

SBR System for Phosphorus Removal: Linear Model Based Optimization, 442

Aerial photography

Differential GPS Geometric Rectification of Fine-Resolution Aircraft Scanner Data, 1246

Aerial surveys

Aerial Radiation Survey at Military Range, 1448

Aerobic processes

Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468

Modeling Natural Attenuation of Fuels with BIOPLUME III, 14

Aerodynamic forces

Dynamic Tests on Large Cable-Stayed Bridge, 61

Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Turning with the Wind, 1525

Aerodynamics

In the Wake of Tocama: Suspension Bridges and the Quest for Aerodynamic Stability, 1592

Aerospace transport

Space Transfer-Vehicle Concept for Deploying Solar-Power Satellites, 24

Africa

Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

Value Engineering and Optimal Building Projects, 42

Age factors

Impact of Road Conditions on Elderly Drivers, 1284

Initiative to Strengthen Publications by Young Faculty, 1060

Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913

SUBJECT INDEX

Algorithms

Aggradation

Aggradation at Bridges, 683

Aggregate gradation

Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971

Aggregates

RCC Mix Design—Soils Approach, 976

Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977

Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316

Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986

Aggregation

Disaggregation of Daily Rainfall for Continuous Watershed Modeling, 808

Training Artificial Neural Networks to Perform Rainfall Disaggregation, 776

Aging

Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655

Effect of Treatments on Pore Network of Granites, 989

Identification and Quantification of Environmental Issues of Aging Coal-Based Power Plant—Case Study, 277

What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337

Agreements

Comprehensive Transboundary International Water Quality Management Agreement, 1574

Agriculture

Drainage Reduction under Land Retirement over a Shallow Water Table, 854

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Air conditioning

Cold-Air Distribution Comparison for Four Supply Air Diffusers, 37

Air injection

Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Air pollution

Adsorption and Electrothermal Desorption of Hazardous Organic Vapors, 456

Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494

Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296

External Costs of Air Emissions from Transportation, 836

Gas-Liquid Mass Transfer along Small Sewer Reaches, 482

Numerical Study on Flow over Buildings in Street Canyon, 475

Parking Facilities in Urban Areas: Air and Noise Impacts, 1325

Air temperature

Rain-on-Snow Surcharge for Roof Design, 1078

Air traffic

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy under Static Conditions, 1309

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy in Real Time, 1310

Air water interactions

Gas-Liquid Mass Transfer along Small Sewer Reaches, 482

Airblast

Considerations for Blast-Resistant Glazing Design, 47

Aircraft

Design Considerations for Aircraft Bridges, 112

Stochastic Field Models for Aircraft Jet Engine Applications, 32

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy under Static Conditions, 1309

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy in Real Time, 1310

Airfields

Advanced Airfield Pavements, 1565

Airport access

The Future of Airports, 1487

Airport design

The Future of Airports, 1487

An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298

Airport runways

Advanced Airfield Pavements, 1565

An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy under Static Conditions, 1309

Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy in Real Time, 1310

Airport terminals

Numerical Studies on Smoke Filling Process in an Airport Terminal, 46

Airports

Airport on the Move, 1541

Design Considerations for Aircraft Bridges, 112

The Future of Airports, 1487

Alcohols

Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568

Alfalfa

Plant Uptake of Methyl tert-Butyl Ether (MTBE) from Ground Water, 1455

Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873

Regional Alfalfa Yield, ET_c, and Water Value in Western States, 874

Algae

Phytoremediation Potential and Toxicity of Barium to Three Freshwater Microalgae: *Scenedesmus subspicatus*, *Selenastrum capricornutum*, and *Nannochloropsis* sp., 1461

Algorithms

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

- Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561
- Algorithm for Determining Controlling Path Considering Resource Continuity, 207
- Application of Dynamic System Identification to Timber Beams. I, 1121
- Application of Dynamic System Identification to Timber Beams. II, 1122
- Applying Modified Minimum Moment Method to Multiple Resources: Leveling, 233
- Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183
- Derivation of Pareto Front with Genetic Algorithm and Neural Network, 777
- Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297
- DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703
- Evolutionary Programming for Inverse Problems in Civil Engineering, 189
- Genetic Algorithm for Optimizing Supply Locations around Tower Crane, 248
- Genetic Algorithm for Selecting and Scheduling Interdependent Projects, 1385
- Improvement Algorithm for Limited Space Scheduling, 224
- Improvements to Sight Distance Algorithm, 1289
- Interior-Point Method for Reservoir Operation with Stochastic Inflows, 1341
- Multiobjective Optimal Structural Vibration Control Using Fuzzy Logic Control System, 1224
- Multiple Linearization Method for Nonlinear Reliability Analysis, 414
- Multireservoir Modeling with Dynamic Programming and Neural Networks, 1345
- New Algorithm for Hydraulic Calculation in Irrigation Laterals, 890
- Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360
- Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293
- Stability and Performance of Car-Following Models in Congested Traffic, 1254
- Statistical and Genetic Algorithms Classification of Highways, 1283
- System Reliability-Based Configuration Optimization of Trusses, 1180
- Unsaturated-Flow Simulation with Green Element Models, 697
- Urban Planning Using Augmented Reality, 1331
- Use of GA to Determine Areas of Accretion to Semi-confined Aquifer, 737
- Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy under Static Conditions, 1309
- Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy in Real Time, 1310
- Alignment**
- Alignment during Preproject Planning, 949
- Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293
- Alkalinity**
- Physical and Chemical Evaluation of CCBs for Alternative Uses, 276

Allocations

- Spatial Location-Allocation Model for Multiple Center Villages, 1330

Alluvial fans

- Development and Geometric Similarity of Alluvial Deltas, 671
- Estimating the Depth of Deposition (Erosion) at Slope Transitions on Alluvial Fans, 742

Alluvium

- Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862

Aluminum

- Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103
- Failure Study of an Aluminum Bridge Deck Panel, 1039
- Finite-Element Modeling of Beams under Concentrated Loading, 1092
- Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31

Ammonia

- Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372

- SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441

- SBR System for Phosphorus Removal: Linear Model Based Optimization, 442

Amplitude

- Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420

Anaerobic digestion

- Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Anaerobic processes

- Automatic Start-Up of UASB Reactors, 478
- BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492
- Diagnosing Upsets in Anaerobic Wastewater Treatment Using Bayesian Belief Networks, 467
- Environmental Factor Affecting Selenite Reduction by a Mixed Culture, 451
- Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435
- Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535
- Modeling Natural Attenuation of Fuels with BIOPLUME III, 14
- Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459
- Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444

Analysis

- Analytical Study of Porous Wave Absorber, 316
- Design and Build Project Success Factors: Multivariate Analysis, 221
- Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043
- Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573
- Lagrangian Meshfree Formulation for Analysis of Geotechnical Materials, 330

SUBJECT INDEX

Arizona

- Preliminary Analysis of Suspension Bridges, 82
- Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331
- Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125
- Analytical techniques**
- Analytical Model for Predicting Shear Strength of Squat Walls, 1074
- Analytical Solution for Normal Irrigation Distribution Parameters, 861
- Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376
- Interface Shear Stress: A New Design Criterion for Plate Debonding, 147
- Anchorage**
- Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162
- Three-Dimensional Modeling of Anchorage Zones in Reinforced Concrete, 357
- Anchors**
- Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157
- Tensile Behavior of FRP Tendons for Prestressed Ground Anchors, 152
- Angle section**
- Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141
- Anisotropic materials**
- Anisotropic Elastic Constants: Measurement by Impact Resonance, 1014
- BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295
- Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371
- Anisotropy**
- Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967
- Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608
- Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342
- Antarctic**
- Taking Treatment to the Extremes, 1550
- Tunneling System for the South Pole, 142
- Application methods**
- Quality Function Deployment in Design/Build Projects, 41
- Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611
- Approximation methods**
- Approximate Analysis Method for Modular Tubular Falsework, 1101
- Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403
- Extreme Value of Response to Nonstationary Excitation, 319
- Refined Global Approximation Theory of Multilayered Plates and Shells, 292
- Aquatic habitats**
- River-Ice Ecology. II: Biological Aspects, 129
- Simulating Mobile Populations in Aquatic Ecosystems, 1377
- Aquatic plants**
- River-Ice Ecology. II: Biological Aspects, 129
- Aquifer characteristics**
- Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452
- Aquifers**
- Calculation of Inflow and Outflow in Phreatic Aquifers, 856
- Confined Aquifer Parameters from Temporal Derivative of Drawdowns, 710
- Falling Water Tables in Horizontal/Sloping Aquifer, 906
- Identification of Contaminant Source Location and Release History in Aquifers, 799
- Identifying Impervious Boundary and Aquifer Parameters from Pump-Test Data, 694
- Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896
- Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862
- Modification of Canal Flow due to Stream-Aquifer Interaction, 719
- New MOC Model of Seawater Transport in Coastal Aquifers, 817
- Optimal Extraction of Water from Regional Aquifer under Salinization, 1343
- Use of GA to Determine Areas of Accretion to Semi-confined Aquifer, 737
- Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344
- Archaeology**
- Rediscovering the Lost City, 1480
- Arches**
- The Long Arch, 1511
- Architect/engineers**
- Relevance of the Network Factor in the Selection of Consultants, 1068
- Strategic Management in Design Firms, 1054
- Architectural engineering**
- Transformable Structures Design Features and Preliminary Investigation, 39
- Understanding Concepts of Efficiency and Effectiveness in Architectural Facilities Space Planning and Design, 52
- Architecture**
- Global Engineering and Construction Change, 921
- Arctic regions**
- Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133
- Arid lands**
- Revising the Cutthroat Flume Settlement Rating Adjustment Procedure, 863
- Strategy for Landfill Design in Arid Regions, 1441
- Arizona**
- Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329

Design-Builder Selection for Small Highway Projects, 964

Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340

State-Specific Vehicle Noise Emission Characteristics, 1321

Armor units

Suction Removal of Sediment from between Armor Blocks, 696

Aromatic hydrocarbons

Thermally Enhanced Vapor Extraction for Removing PAHs from LampBlack-Contaminated Soil, 554

Arterial highways

Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294

Artificial recharge

Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450

Stress and Displacement around Elastic Artificial Rectangular Hole, 379

ASCE Awards & Prizes

Behavior of Steel Box Girders with Top Flange Bracing, 2

Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8

Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11

Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7

Maintenance Planning for Deteriorating Concrete Bridges, 3

Modeling Natural Attenuation of Fuels with BIOPUME III, 14

Outstanding Civil Engineering Achievement Award and Award of Merit for 2001, 1531

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1

Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9

Structural Equation Model of Construction Contract Dispute Potential, 12

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

ASCE Committees

A New Day for ASCE, 941

ASCE Policy

Face Value: The Silent Diversity Challenge, 929

ASCE Student Chapters

Community Service Project Planning for ASCE Student Chapters/ Clubs, 1066

Seven Keys to a Successful ASCE Student Chapter or Club: Guide for Student Leaders and Faculty Advisors, 1055

ASCE Technical Divisions

Role of ASCE in the Advancement of Computing in Civil Engineering, 200

Ashes

Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623

Performance and Leaching Assessment of Flowable Slurry, 474

Physical and Chemical Evaluation of CCBs for Alternative Uses, 276

Use of Sewage Sludge Ash as Brick Material, 545

Asia

How Park-and-Ride Schemes Can Be Successful in Eastern Asia, 1328

Asphalt cement

Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977

Asphalt mixes

Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261

Asphalt pavements

Assessment of Asphalt Specimen Homogeneity, 1301

Comparison of Two Pavement Rehabilitation Strategies, 1259

Performance of Geosynthetic-Reinforced Asphalt Pavements, 587

Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261

Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300

Stabilization of Sebkhia Soil Using Foamed Asphalt, 1010

Status of Roller Mountable Microwave Asphalt Pavement Density Sensor, 215

Asphaltic concrete

Asphalt Works Subcontracting Disputes in Large Construction Programs, 1038

Thermal Cracking of Viscoelastic Asphalt-Concrete Pavement, 358

Asphalts

Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024

Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315

Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300

Stabilization of Sebkhia Soil Using Foamed Asphalt, 1010

Stress Distribution at the Interface Corner of a Tri-Material Structure, 364

Unifying Asphalt Rheological Data Using the Material's Volumetric-Flow Rate, 1003

Assessments

Assessing Sensitivity Factors of Irrigation Delivery Structures, 902

Assessment of Asphalt Specimen Homogeneity, 1301

Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105

Assessment of Existing Structures—Approaches and Research Needs, 1119

Assessment of Fate of Manganese in Oxide-Coated Filtration Systems, 570

Calibration Assessment and Data Collection for Water Distribution Networks, 693

Estimation of Volcanic Hazards from Tephra Fallout, 1424

GIS-Based Estimation of Slope Stability, 1422

Load Rating of Masonry Arch Bridges, 64

Reliability-Based Assessment of Suspension Bridges: Application to the Innoshima Bridge, 103

Space Solar Power: An Assessment of Challenges and Progress, 21

Technical Assessment of Space Solar Power Research Program, 22

Asymmetry

Role of Bed Discordance at Asymmetrical River Confluences, 701

Atmospheric pressure

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Atterberg limits

Use of Class C Fly Ashes for the Stabilization of an Expansive Soil, 622

Australia

Combined Analysis of Real-Time Kinematic GPS Equipment and its Users for Height Determination, 1245

Field Applications of a Variable-Parameter Muskingum Method, 796

Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763

Automation

Evaluation of the Trevipark Automated Parking System, 1582

Flap Gate Design for Automatic Upstream Canal Water Level Control, 867

Quantitative Cellular Automaton Model for Biofilms, 527

Automobiles

Design Live Loads for Passenger Cars Parking Garages, 1104

Rental Cars Unique Accident Trends, 1275

Avalanches

Avalanche Statistics of Interface Crack Propagation in Fiber Bundle Model: Characterization of Cohesive Crack, 352

Axial compression

Elastic Buckling of Multilayered Anisotropic Conical Shells, 19

Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17

Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18

Axial forces

Testing and Analysis of Steel Pipe Segments, 1306

Axial loads

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200

Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79

Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293

Failure Criterion for RC Members under Biaxial Bending and Axial Load, 1177

M-P- Φ Diagrams for Reinforced, Partially, and Fully Prestressed Concrete Sections under Biaxial Bending and Axial Load, 1160

Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284

Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082

Reinforced, Partially, and Fully Prestressed Slender Concrete Columns under Biaxial Bending and Axial Load, 1161

Reliability of Axially Loaded Driven Pile Groups, 667

Shear Strength of Concrete-Encased Composite Structural Members, 1207

Axisymmetry

Bending Solutions of Axisymmetric Levinson Plates in Terms of Corresponding Kirchhoff Solutions, 428

Modeling Nonspherical Particles Using Multisphere Discrete Elements, 391

Backfills

Radar Testing of a Masonry Composite Structure with Sand and Water Backfill, 87

Sediment Transport and Backfilling of Trenches in Oscillatory Flow, 1411

Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609

Backwater

Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413

Bacteria

Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432

Evaluation of Drinking Water Biostability Using Biofilm Methods, 479

Evaluation of Laser In Situ Scattering Instrument for Measuring Concentration of Phytoplankton, Purple Sulfur Bacteria, and Suspended Inorganic Sediments in Lakes, 558

Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535

Banding

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365

Bangladesh

Quality of Building Construction Materials (Cement) in Developing Countries, 43

Bank erosion

Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720

Barges

Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413

Static Finite-Element Analysis of Bridge Fenders for Barge Impact, 1042

Barriers

Effect of Soil-Particle Size Contrast on Capillary Barrier Performance, 650

Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041

Bars

Circular Bars under Distributed Torques, 15

Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232

Effect of Bars Properties on Bond Strength of Galvanized Reinforcement, 1027

Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993

Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005

Nonuniform Torsion of Composite Bars by Boundary Element Method, 387

Base course

Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316

Base flow

Modeling Looped Ratings in Muskingum-Cunge Routing, 787

Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714

Base isolation

Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193

Base plates

New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203

Basins

Finite Volume Model for Nonlevel Basin Irrigation, 885

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Batch processing

Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453

Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435

Bathymetry

Linear Refraction-Diffraction Model for Steep Bathymetry, 1397

Batter piles

Nonlinear Finite-Element Modeling of Batter Piles under Lateral Load, 626

Bayesian analysis

Diagnosing Upsets in Anaerobic Wastewater Treatment Using Bayesian Belief Networks, 467

Bays

Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735

Beaches

Hydrographic Surveying from Personal Watercraft, 1243

Beam columns

Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093

Inelastic Large Deflection Modeling of Beam-Columns, 1172

Localization Issues in Force-Based Frame Elements, 1216

New Model for Shear Failure of RC Interior Beam-Column Connections, 1089

Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082

Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96

Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221

Beams

Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278

Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373

Asymmetric Low-Velocity Impact of a Finite Layer, 336

Behavior and Modeling of Nonprismatic Members Having T-Sections, 1179

Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154

Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144

CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168

Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073

Concrete Beams Strengthened with Externally Bonded FRP Plates, 148

Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103

Cyclic Stability Criteria for Steel Moment Connections with Reduced Beam Section, 1188

Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981

Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376

Diagonal Shear Failure and Size Effect in RC Beams without Web Reinforcement, 1156

Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194

Effect of Material and Geometry Variations on Beam under Patch Loading, 1178

Effect of Variables on Shear Strength of Concrete Beams, 1029

Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134

Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170

Fatigue Behavior of Welded Diaphragm-to-Beam Connections, 1202

Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309

Flexural Performance of Concrete Beams Reinforced with FRP Grids, 145

Fracture Analysis of FRP Reinforced Concrete Beams, 349

SUBJECT INDEX

Bending

- High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164
- Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326
- Load Bearing Capacity of Reinforced Concrete Beams Subjected to Dynamic Cyclic Loads, 388
- Modeling of Finger-Joint Failure in Glued-Laminated Timber Beams, 1176
- Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182
- Nonlinear Analysis of RC Beam Subject to Cyclic Loading, 1235
- Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
- On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321
- Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166
- Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading, 160
- Response of RC T-Beams Strengthened for Flexure with Staggered CFRP Plates, 164
- Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236
- Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams, 1237
- Shear Strength of Normal Strength Concrete Beams Reinforced with Deformed GFRP Bars, 173
- Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Shear Strengthening of Reinforced Concrete Beams with FRP Rods, 155
- Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172
- Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97
- Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077
- Ultimate Response of RC Beams Strengthened with CFRP Plates, 156
- Bearing capacity**
 - Base Resistance of Jacked Pipe Piles in Sand, 613
 - Diagnostic Load Testing of Two-Way PostTensioned Concrete Slab, 1470
 - Influence of Nonassociativity on the Bearing Capacity of a Strip Footing, 661
 - Load Bearing Capacity of Reinforced Concrete Beams Subjected to Dynamic Cyclic Loads, 388
 - Load Rating of Masonry Arch Bridges, 64
 - Neural Network Model for Uplift Load Capacity of Metal Roof Panels, 1218
 - Performance of Geosynthetic-Reinforced Asphalt Pavements, 587
 - Post-Finite Element Prediction Strategies for Engineering Structures, 1228
 - Quantifying Field-Test Behavior for Rating Steel Girder Bridges, 86
 - Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595
- Reliability of Axially Loaded Driven Pile Groups, 667
- Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236
- Rule of Equivalent States in Limit-State Analysis of Soils, 578
- Scale Effect of Strip and Circular Footings Resting on a Dense Sand, 627
- Strengthening of Unreinforced Masonry Walls Using FRPs, 151
- Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102
- Bearings**
 - Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88
 - Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57
 - Neoprene Bearing Pad Slippage at Louisiana Bridges, 58
- Bed load**
 - Development and Geometric Similarity of Alluvial Deltas, 671
- Bed load movement**
 - Sediment Pickup on Streamwise Sloping Beds, 860
- Bed material**
 - Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692
 - Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552
 - Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Bed roughness**
 - Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749
 - Spatially Averaged Open-Channel Flow over Rough Bed, 680
 - Turbulence Intensities of Shallow Rain-Impacted Flow over Rough Bed, 751
- Bedrock**
 - Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590
 - Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452
- Bench marks**
 - New MOC Model of Seawater Transport in Coastal Aquifers, 817
- Bending**
 - Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369
 - Behavior of Steel Box Girders with Top Flange Bracing, 2
 - Bending Fatigue of Cable Stays, 126
 - Bending Solutions of Axisymmetric Levinson Plates in Terms of Corresponding Kirchhoff Solutions, 428
 - Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309
 - Flexural Behavior of Circular Concrete Filled FRP Shells, 1165
 - Generalized Bending of Shear-Deformable Plate with Elastic Inclusion, 384
 - Inverse Design of Frames for Specified Second-Order Bending Strains, 1139

Bending

- Refined Global Approximation Theory of Multilayered Plates and Shells, 292
- Size-Effect on Fatigue in Bending of Concrete, 1026
- Testing and Analysis of Steel Pipe Segments, 1306

Bending moments

- Finite-Element Modeling of Beams under Concentrated Loading, 1092
- Piled Raft Foundation Design, 572
- Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076

Benefit cost ratios

- Selection of Sprinkler Lateral for Shorter Life Cycle, 893

Bentonite

- Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872
- Effects of Organic Cation Structure on Behavior of Organobentonites, 603
- Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481
- Organoclay with Soil-Bentonite Admixture as Waste Containment Barriers, 523
- Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Benzene

- Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458
- BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492
- Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Best management practice

- Are Best-Management-Practice Criteria Really Environmentally Friendly?, 1351
- Determining Urban Storm Water BMP Effectiveness, 1350

Biaxial bending

- Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150
- Failure Criterion for RC Members under Biaxial Bending and Axial Load, 1177
- Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- M-P- Φ Diagrams for Reinforced, Partially, and Fully Prestressed Concrete Sections under Biaxial Bending and Axial Load, 1160
- Reinforced, Partially, and Fully Prestressed Slender Concrete Columns under Biaxial Bending and Axial Load, 1161
- Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129
- Strength of Slender Reinforced Concrete Columns under Biaxial Bending, 1159

Biaxial loads

- Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150
- In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299

Biaxial stress

- Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150

2001 ASCE TRANSACTIONS

- Masonry Failure Criterion under Biaxial Stress State, 974

Bibliographies

- Bibliography for Teaching Hydraulic Design, 770

Bids

- Bid-Spread, 228
- Case-Based Reasoning Approach in Bid Decision Making, 214
- Cost Analysis between S ABER and Design Bid Build Contracting Methods, 253
- Optimum Planning of Highway Construction under A + B Bidding Method, 242
- Personal Experiences of Cost Control on the China Merchants Plaza Project, 927
- Role of Marketing Intelligence in Making Pricing Policy in Construction, 956

Bifurcations

- 3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687
- Buckling of Column with Base Attached to Elastic Half-Space, 304
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321

Biodegradation

- Attenuation of Petroleum Hydrocarbons in Smear Zones: A Case Study, 508
- Biodegradation of Naphthalene-Contaminated Soils in Slurry Bioreactors, 522
- Bioremediation Kinetics of Crude Oil at 5° C, 531
- BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492
- Carbon Addition Reduced Lag Time for 2,4,6-Trichlorophenol Degradation, 524
- Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445
- Modeling Natural Attenuation of Fuels with BIOPLUME III, 14
- Organoclay with Soil-Bentonite Admixture as Waste Containment Barriers, 523
- Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461

Biofilm

- Analysis of Overall Perchlorate Removal Rates in Packed-Bed Bioreactors, 487
- Biofilm Growth and Mineral Precipitation in Synthetic Leachate Columns, 647
- Evaluation of Drinking Water Biostability Using Biofilm Methods, 479
- Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445
- Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462
- Quantitative Cellular Automaton Model for Biofilms, 527
- Rotating-Perforated-Tubes Biofilm Reactor for High-Strength Wastewater Treatment, 550
- Spatial Distribution of Extracellular Polymeric Substances in Biofilms, 536
- Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444

Biogas

- Automatic Start-Up of UASB Reactors, 478

SUBJECT INDEX

Bonding

Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Biological operations

Load Dampening System for Vapor Phase Bioreactors, 457

Biological properties

River-Ice Ecology. II: Biological Aspects, 129

Biological treatment

Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562

Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563

Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505

Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445

Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468

Evaluation of Slip Feed System for Vapor-Phase Bioreactors, 553

An Improved Real-Coded GA for Groundwater Bioremediation, 198

Mathematical Model of Biofiltration of VOCs: Effect of Nitrate Concentration and Backwashing, 510

Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443

Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540

A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349

Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552

Plant-Enhanced Remediation of Glycol-Based Aircraft Deicing Fluids, 1456

Predictions of Bioremediability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

Reaction Kinetics of Immobilized-Cell Denitrification. I: Background and Model Development, 513

Reaction Kinetics of Immobilized-Cell Denitrification. II: Experimental Study, 514

Removal of EATX from Waste Gases by a Trickl-Bed Air Biofilter, 548

Sensitivity of Optimal Groundwater Remediation Designs to Residual Water Quality Violations, 1369

Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461

Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

Uptake, Selectivity, and Inhibition of Hydroponic Treatment of Contaminants, 491

Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463

VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463

Biomass

Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432

Effects of Biomass Growth on Gas Pressure Drop in Biofilters, 477

Evaluation of Slip Feed System for Vapor-Phase Bioreactors, 553

Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Bitumen

Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436

Recycled Polymers for Use as Bitumen Modifiers, 1008

Blasting

Evaluating and Managing Construction Blasting Risk, 1465

Blocks

Experimental and Numerical Simulations of Jointed Rock Block Strength under Uniaxial Loading, 422

Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44

Rocking Response of Anchored Blocks under Pulse-Type Motions, 334

Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333

Suction Removal of Sediment from between Armor Blocks, 696

Bolts

Stiffness Modeling of Bolted T-Stub Connection Components, 1130

Bond stress

Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

Bonded joints

Stress Distribution at the Interface Corner of a Tri-Material Structure, 364

Bonding

About Debonding of Thin Cement-Based Overlays, 982

Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162

Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117

Compressive Behavior of Concrete with Vitrified Soil Aggregate, 1018

Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005

Interface Shear Stress: A New Design Criterion for Plate Debonding, 147

Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

Moiré Interferometry Analysis of Fiber Debonding, 350

Reinforcement of Elastic Structures in the Presence of Imperfect Interfacial Bonding, 354

Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236

Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077

Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Bonding strength

- Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117
- Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073
- Concrete Beams Strengthened with Externally Bonded FRP Plates, 148
- Effect of Bars Properties on Bond Strength of Galvanized Reinforcement, 1027
- Evaluation of Bond Properties in Concrete Repair Materials, 980
- Measuring and Modifying Interface Properties of PVA Fibers in ECC Matrix, 1019
- Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115

Bored piles

- Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639
- Effects of Construction on Laterally Loaded Pile Groups, 605
- New Failure Load Criterion for Large Diameter Bored Piles in Weathered Geomaterials, 615
- Response of Laterally Loaded Large-Diameter Bored Pile Groups, 630
- Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631

Borehole geophysics

- Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452

Boston

- Cost-Effective Landfill Closure: Boston's "Menino Project", 1444

Boundaries

- Identifying Impervious Boundary and Aquifer Parameters from Pump-Test Data, 694

Boundary conditions

- Application of Periodic Boundary for Large Pile Group, 651
- Aspects of Inlet Boundary Prescription for a Turbulent Flow Field, 733
- Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306
- Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396
- Functional Relationship to Describe Drains with Entrance Resistance, 903
- Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332
- Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100
- Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798

Boundary element method

- BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295
- Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimens, 324
- Investigation of Design Alternatives for a Piled Raft Case History, 629

- Nonuniform Torsion of Composite Bars by Boundary Element Method, 387
- Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305

- Unsaturated-Flow Simulation with Green Element Models, 697

Boundary layer

- Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416
- Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395

Boundary values

- Calculation of Inflow and Outflow in Phreatic Aquifers, 856
- Green's Function of Thermoelastic Mixed Boundary Value Problem for an Elliptic Hole, 370
- Higher-Order Homogenization of Initial/Boundary-Value Problem, 420
- Rule of Equivalent States in Limit-State Analysis of Soils, 578

Bounding surface

- Bounding Surface Model for Geosynthetic Reinforcements, 390
- Plasticity Model for Sand under Small and Large Cyclic Strains, 660

Boussinesq equations

- Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396
- Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855
- Falling Water Tables in Horizontal/Sloping Aquifer, 906
- Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896

Box beams

- Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125

Box girders

- Behavior of Steel Box Girders with Top Flange Bracing, 2
- Negative Shear Lag Effect in Box Girders with Varying Depth, 1213
- Preliminary Design System for Concrete Box Girder Bridges, 194
- Sharp Curves, 1530
- Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153

Bracing

- Behavior of Steel Box Girders with Top Flange Bracing, 2
- Effective Length Factor for Discontinuous X-Bracing Systems, 290
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154

Braking

- Required Stopping Sight Distance on Crest Vertical Curves, 1288

Brazil

- Experimental Investigations of Oxygenated Gasoline Dissolution, 455
- Shotcrete for Underground Support VIII, 1604

SUBJECT INDEX

Breaking waves

- Experiments with Groups of Breaking Waves. Part I: Short Wave Motion, 1402
- Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410
- Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

Breakwaters

- Reflection and Transmission of Waves over Submerged Breakwaters, 289
- Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390
- Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381

Brick masonry

- Assessment of Cracking and Collapse for Old Brick Masonry Columns, 1234
- Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161
- Review of Water Ingress Characteristic of Stressed Masonry, 1011
- Seismic Reliability of Masonry Infilled RC Frames, 1106

Bricks

- Use of Sewage Sludge Ash as Brick Material, 545

Bridge abutments

- Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612

Bridge construction

- Behavior of Steel Box Girders with Top Flange Bracing, 2
- Constructability Improvement of Bridges Using Stepping Formwork, 235
- Improving the Wind Stability of Suspension Bridges during Construction, 1171
- In the Wake of Tocama: Suspension Bridges and the Quest for Aerodynamic Stability, 1592
- Model for Evaluating Bridge Construction Plans, 258
- Stronger Longer, 1508

Bridge decks

- Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88
- Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56
- Cliff-Hanger, 1481
- Composites Enhance Timber bridges, 1538
- Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466
- Design Recommendations for Externally Restrained Highway Bridge Deck, 84
- Erection of Cable-Stayed Bridges Having Composite Decks with Precast Concrete Slabs, 95
- Failure Study of an Aluminum Bridge Deck Panel, 1039
- Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72
- Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331
- Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841
- Strength and Serviceability of FRP Grid Reinforced Bridge Decks, 124

Bridge maintenance

- Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Bridge design

- Alternate Substructure Systems for Standard Highway Bridges, 65
- Beltway Connection, 1495
- Bridge to the Future, 1554
- Cliff-Hanger, 1481
- Competitive Edge, 1529
- Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466
- Design Considerations for Aircraft Bridges, 112
- Design Method of a Hanger System for Long-Span Suspension Bridge, 75
- Design Recommendations for Externally Restrained Highway Bridge Deck, 84
- Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120
- A Grand New Bridge, 1486
- In the Wake of Tocama: Suspension Bridges and the Quest for Aerodynamic Stability, 1592
- Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Piece by Piece, 1509
- Preliminary Design of the Prestressed Concrete Stress Ribbon Bridge, 83
- Preliminary Design System for Concrete Box Girder Bridges, 194
- Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1
- State-of-the-Art in Design of Curved Box-Girder Bridges, 73
- Steel Single Box Ramp Bridges, 85

Bridge failure

- In the Wake of Tocama: Suspension Bridges and the Quest for Aerodynamic Stability, 1592

Bridge foundations

- Bridge Foundations for Hightstown Bypass, 662
- Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69

Bridge inspection

- Bridge Lifetime System Reliability under Multiple Limit States, 116
- High-Tech Inspection, 1544
- Maintenance Planning for Deteriorating Concrete Bridges, 3
- Performance of Segmental and Posttensioned Bridges in Europe, 118

Bridge loads

- Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70
- Prototype Diagnosis Expert System with Knowledge Refinement Function, 185

Bridge maintenance

- Bridge Lifetime System Reliability under Multiple Limit States, 116
- Extended Life Span, 1539
- Maintenance Planning for Deteriorating Concrete Bridges, 3
- Quality Control Parameters for Robotic Bridge Painting, 227

Bridge maintenance

Reliability-Based Life-Cycle Management of Highway Bridges, 176

Bridge tests

Cable Erection Test at Pylon Saddle for Spatial Suspension Bridge, 76

Bridge towers

Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107

Bridges

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Aggradation at Bridges, 683

Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79

Damage Diagnosis Using Experimental Ritz Vectors, 416

Design, Specification, Installation, and Maintenance of Modular Bridge Expansion Joint Systems, 117

Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239

Evaluation Findings for Seismic Energy Products, L.P. Elastromeric Isolation Bearing, 1580

Holding Steady, 1527

Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405

Local Versus Global Ductility Demands in Simple Bridges, 1136

Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57

New Zealand Bridge Scour, 716

Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612

Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96

Seismic Performance of RC Bridge Column under Repeated Ground Motions, 108

Seismic Restraint Design Methods for Simply Supported Bridges, 92

Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122

Static Finite-Element Analysis of Bridge Fenders for Barge Impact, 1042

Bridges, arch

Cliff-Hanger, 1481

Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110

Load Rating of Masonry Arch Bridges, 64

Bridges, box girder

Dynamic Analysis of Steel Curved Box Girder Bridges, 113

Realistic Long-Term Prediction of Prestress Forces in PSC Box Girder Bridges, 1198

Stability Analysis of Box-Girder Cable-Stayed Bridges, 62

State-of-the-Art in Design of Curved Box-Girder Bridges, 73

Steel Single Box Ramp Bridges, 85

Bridges, cable-stayed

Ambient Vibration of Long-Span Cable-Stayed Bridge, 60

Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105

Bending Fatigue of Cable Stays, 126

2001 ASCE TRANSACTIONS

Control of Seismically Excited Cable-Stayed Bridge Using Resetting Semiactive Stiffness Dampers, 101

Dynamic Tests on Large Cable-Stayed Bridge, 61

Erection of Cable-Stayed Bridges Having Composite Decks with Precast Concrete Slabs, 95

Evaluation of Viscous Dampers for Stay-Cable Vibration Mitigation, 102

Finite-Element Model Updating for the Kap Shui Mun Cable-Stayed Bridge, 90

A Grand New Bridge, 1486

Performance of Segmental and Posttensioned Bridges in Europe, 118

Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107

Stability Analysis of Box-Girder Cable-Stayed Bridges, 62

Theory and Full-Bridge Modeling of Wind Response of Cable-Supported Bridges, 99

Bridges, composite

Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56

Bridges, concrete

Constructability Improvement of Bridges Using Stepping Formwork, 235

Durability of Segmental Concrete Bridges, 115

Maintenance Planning for Deteriorating Concrete Bridges, 3

Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851

Neoprene Bearing Pad Slippage at Louisiana Bridges, 58

Phase II Evaluation Findings: The Segmental Concrete Channel Bridge System, 1599

Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135

Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841

Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77

The Transportation Connection, 1561

Bridges, girder

Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88

Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81

Engineered Heat-Straightening Repairs: A Case Study, 66

Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123

Live Load Distribution for Steel Girder Bridges, 111

Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55

Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91

Neoprene Bearing Pad Slippage at Louisiana Bridges, 58

Nonlinear Flexural Behavior of Prestressed Concrete Girder Bridges, 89

Preliminary Design System for Concrete Box Girder Bridges, 194

Quantifying Field-Test Behavior for Rating Steel Girder Bridges, 86

SUBJECT INDEX

- Response of Prestressed Concrete I-Girder Bridges to Live Load, 54
- Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93
- Strengthening of a Steel Bridge Girder Using CFRP Plates, 114
- Bridges, highway**
- Alternate Substructure Systems for Standard Highway Bridges, 65
- BART SFO Extension Aerial Guideways: Using Non-linear Analysis to Control and Minimize Seismic Damage, 100
- Beltway Connection, 1495
- Bridge Lifetime System Reliability under Multiple Limit States, 116
- Closing the Gap, 1556
- Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466
- Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153
- Design Recommendations for Externally Restrained Highway Bridge Deck, 84
- Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090
- Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984
- Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Probabilistic Seismic Demand Model for California Highway Bridges, 109
- Reliability-Based Life-Cycle Management of Highway Bridges, 176
- Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125
- Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307
- Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68
- Sharp Curves, 1530
- Stochastic Model for Multilane Traffic Effects on Bridges, 71
- Use of Isolation for Seismic Retrofitting Bridges, 106
- Bridges, pedestrian**
- Bridge to the Future, 1554
- London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104
- Bridges, piers**
- Beltway Connection, 1495
- Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153
- Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581
- Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032
- Repair of Corrosion-Damaged Columns with FRP Wraps, 143
- Retrofit Analysis of Bridge Fender Systems, 1418
- Riprap Protection at Bridge Piers, 706
- Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079
- Bridges, railroad**
- Fast Forward, 1517
- Full-Scale Field Failure Tests of Railway Bridge, 98

Brittle fractures

- Bridges, skew**
- Alternative Layout for the Prestressing of Slab Bridges, 94
- Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331
- Bridges, spans**
- Competitive Edge, 1529
- Constructability Improvement of Bridges Using Stepping Formwork, 235
- Extended Life Span, 1539
- Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121
- Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107
- Stronger Longer, 1508
- Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287
- Bridges, steel**
- Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110
- Live Load Distribution for Steel Girder Bridges, 111
- Quantifying Field-Test Behavior for Rating Steel Girder Bridges, 86
- Strengthening of a Steel Bridge Girder Using CFRP Plates, 114
- Bridges, suspension**
- Cable Erection Test at Pylon Saddle for Spatial Suspension Bridge, 76
- Cracking and Fracture of Suspension Bridge Wire, 127
- Design Method of a Hanger System for Long-Span Suspension Bridge, 75
- Improving the Wind Stability of Suspension Bridges during Construction, 1171
- In the Wake of Tacoma: Suspension Bridges and the Quest for Aerodynamic Stability, 1592
- Piece by Piece, 1509
- Preliminary Analysis of Suspension Bridges, 82
- Reliability-Based Assessment of Suspension Bridges: Application to the Innoshima Bridge, 103
- Suspension Bridge Flutter for Girders with Separated Control Flaps, 74
- Bridges, truss**
- Stress Spikes in Pin and Hanger System of a Truss Bridge, 67
- Bridges, viaduct**
- Live Load Tests of the San Antonio "Y", 119
- Transporting Hong Kong, 1490
- Bridges, wooden**
- Composites Enhance Timber Bridges, 1538
- Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72
- Response of Timber Bridge to Traffic Loading, 63
- Brittle failure**
- Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144
- Brittle fractures**
- Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298
- Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8

Brittleness

- Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298
- Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimen, 324
- Effects of Preloading on Brittle Solids, 279
- Fracture Properties of High-Strength Concrete, 978

Bubbles

- Prediction and Measurement of Bubble Formation in Water Treatment, 551

Buckling

- Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369
- Another Look at Hartford Civic Center Coliseum Collapse, 1034
- Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222
- Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306
- Basis and Application of Simple Interaction Formula for Steel Frames under Fire Conditions, 1210
- Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085
- Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421
- Buckling of Column with Base Attached to Elastic Half-Space, 304
- Buckling of Cylindrical Tunnel Liners, 317
- Buckling of Skew Plates with Continuity or Rotational Edge Restraint, 28
- Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200
- Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103
- Effective Length Factor for Discontinuous X-Bracing Systems, 290
- Effects of Random Material Properties on Buckling of Composite Plates, 378
- Elastic Buckling of Multilayered Anisotropic Conical Shells, 19
- Global Stability Analysis for Bird-Shaped Girders, 1107
- Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323
- Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17
- Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18
- Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149
- Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100
- Long-Term Buckling Performance of HDPE Liners, 991
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321
- Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230

- Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154
- Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153
- Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288
- Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102

Budgets

- BOT Financial Model: Taiwan High Speed Rail Case, 236
- Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951

Buffeting

- Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410
- Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239

Building codes

- Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194
- Gust Loading Factor: New Model, 1091
- RC Structural Walls Designed According to UBC and Displacement-Based Methods, 1131
- Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129

Building design

- Accidental Torsion in Buildings: Analysis V's Earthquake Motions, 1127
 - Ancient Concept, Modern Context, 1494
 - Computer-Generated Building Data: Topological Information, 203
 - A Contribution to the Development of Guidelines for Toll Plaza Design, 1280
 - Database-Assisted Design, Standardization, and Wind Direction Effects, 1169
 - Design and Construction of High Multitier Shoring Towers: Case Study, 223
 - Energy Tax and Choice of House Construction Techniques in India, 847
 - A Glass Act, 1482
 - Integrated Computational Life-Cycle Assessment of Buildings, 179
 - Managing Design Changes for Multiview Models, 184
 - Native American Imprint, 1543
 - Transformable Structures Design Features and Preliminary Investigation, 39
 - Turning with the Wind, 1525
 - Value Engineering and Optimal Building Projects, 42
- Building frames**
- Consistent Procedure for Creep and Shrinkage Effects in RC Frames, 1155
 - Inverse Design of Frames for Specified Second-Order Bending Strains, 1139
 - Modeling Three-Dimensional Timber Light-Frame Buildings, 1175
 - Partitioning of Tall Buildings using Bubble Graph Representation, 193
 - Ties to Excellence, 1497

SUBJECT INDEX

Calibration

Buildings

Building Energy Management as a Continuous Quality Control Process, 49

Heat Pipe Augmented Passive Solar System for Heating of Buildings, 273

Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Technological Trajectories of Construction Innovation, 50

Buildings, high-rise

Concrete Delivers, 1536

Consistent Procedure for Creep and Shrinkage Effects in RC Frames, 1155

Gust Loading Factor: New Model, 1091

Numerical Study on Flow over Buildings in Street Canyon, 475

Partitioning of Tall Buildings using Bubble Graph Representation, 193

Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125

Towering Achievement, 1548

Use of a Modified Network Model for Analyzing Evacuation Patterns in High-Rise Buildings, 40

Buildings, multistory

Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149

Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050

Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037

Buildings, nonresidential

A Glass Act, 1482

Measurements of Air Leakage through Revolving Doors of Institutional Building, 53

Buildings, office

Environmental Comfort Criteria: Weighting and Integration, 1044

Expert System for Environmental Quality Evaluation, 1045

The Pentagon Project, 1516

Buildings, public

Ancient Concept, Modern Context, 1494

A Glass Act, 1482

Ties to Excellence, 1497

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Buildings, residential

Customer Satisfaction in Home Building, 220

Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Improving Structural Response to Permanent Ground Displacement, 1467

Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326

State of Practice of Residential Floor Slab Flatness, 1047

Build/operate/transfer

BOT Financial Model: Taiwan High Speed Rail Case, 236

Hong Kong Experience in Managing BOT Projects, 229

Procurement Protocols for Public-Private Partnered Projects, 252

Unraveling of BOT Scheme: Malaysia's Indah Water Konsortium, 265

Bulk density

Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872

Bulk handling

Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377

Buoyancy

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Bureau of Reclamation

Big Screen Debut, 1551

Buried pipes

Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263

Stresses and Deformation of Buried Pipeline under Wave Loading, 1305

Buried structures

Scheduling Inspection and Renewal of Large Infrastructure Assets, 850

Standard Practice for Direct Design of Buried Precast Concrete Box Sections, 1609

Buses

Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279

Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297

Genetic Algorithm Approach for Transit Route Planning and Design, 1278

Model for Determining Optimum Bus-Stop Spacing in Urban Areas, 1277

Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318

Cables

Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105

Cable Erection Test at Pylon Saddle for Spatial Suspension Bridge, 76

Cracking and Fracture of Suspension Bridge Wire, 127

Seismic Interaction in Cable-Connected Equipment Items, 407

Calcareous sand

Monotonic Lateral Loading of Piles in Calcareous Sand, 601

Calibration

Calibration Assessment and Data Collection for Water Distribution Networks, 693

Calibration-Free Arterial Link Speed Estimation Model Using Loop Data, 1319

Derivation of Pareto Front with Genetic Algorithm and Neural Network, 777

Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858

New Weighing Mechanism for Precipitation Gauges, 780

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

California

- Apparent Periods of a Building. I: Fourier Analysis, 1132
- Apparent Periods of a Building. II: Time-Frequency Analysis, 1133
- Application of Periodic Boundary for Large Pile Group, 651
- BART SFO Extension Aerial Guideways: Using Non-linear Analysis to Control and Minimize Seismic Damage, 100
- Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193
- Big Screen Debut, 1551
- Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327
- Flood-Warning Decision-Support System for Sacramento, California, 1364
- Gujarat (Kutch) India M7.7 earthquake of January 26, 2001 and Napa M5.2 earthquake of Sept. 3, 2000, 1591
- Habitat Restoration and Agricultural Production under Land Retirement, 888
- Holding Steady, 1527
- Liner Lessons, 1552
- Megaproject Management, 1559
- Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743
- New Navigation Channel, 1560
- Probabilistic Seismic Demand Model for California Highway Bridges, 109
- Raising the Bar of BART, 1563
- Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873
- Reduced-Runoff Irrigation of Sudan Grass Hay, Imperial Valley, California, 899
- Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1
- Sediment Transport in Proposed Geomorphic Channel for Napa River, 752
- Sedimental Journey, 1499
- Seismic Performance of Hillside Fills, 653
- The Transportation Connection, 1561
- Tunneling with Care, 1557
- Twenty-First Century Terminal, 1558
- Canada**
- Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308
- Determination of Component of Ground-Water Flow from Rainfall Data, 801
- Evaluating Safety of Urban Arterial Roadways, 1272
- Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292
- Piece by Piece, 1509
- Theoretical Development of Forces on Cylindrical Ice Booms, 137
- Canal design**
- Design of Minimum Seepage-Loss Nonpolygonal Canal Sections, 871
- Flap Gate Design for Automatic Upstream Canal Water Level Control, 867
- Hydraulic Modeling of Kongsabati Main Canal for Performance Assessment, 858

Canal linings

- Determining Irrigation Canal Seepage with Electrical Resistivity, 857

Canals

- Design of Minimum Seepage Loss Canal Sections with Drainage Layer at Shallow Depth, 895
- Dimensionless Curves for Normal-Depth Calculations in Canal Sections, 907
- Modification of Canal Flow due to Stream-Aquifer Interaction, 719

Canopies

- Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892

Cantilevers

- Damping of Cantilevered Traffic Signal Structures, 1240
- Database for Retaining Wall and Ground Movements due to Deep Excavations, 589
- New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203
- Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16

Canyons

- Seismic Elastic Response of Earth Dams with Canyon Interaction, 611

Capital

- Optimizing Owner/Contractor Core Competencies for Capital Programs, 950

Capital costs

- BOT Financial Model: Taiwan High Speed Rail Case, 236

Capsules

- Predicting Drag Coefficient of Pneumatic Capsule, 1304

Carbon

- Carbon Addition Reduced Lag Time for 2,4,6-Trichlorophenol Degradation, 524
- Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073
- Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165
- Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

Carbon dioxide

- Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Cargo

- Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205

Cargo handling

- Evaluation of Handling Systems for Container Terminals, 1398

Case reports

- Attenuation of Petroleum Hydrocarbons in Smear Zones: A Case Study, 508
- Case Study: Lapino Powerplant Penstock Failure, 717
- Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

SUBJECT INDEX

Channel flow

CITYWORK: Application of Collaborative Technologies for Infrastructure Management, 181

Cost-Effective Landfill Closure: Boston's "Menino Project", 1444

Design and Construction of High Multitier Shoring Towers: Case Study, 223

Distress of RC Structure due to Poor Quality Control and Overloading, 1033

Effective Partnering in Innovative Procured Multicultural Project, 942

Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Engineered Heat-Straightening Repairs: A Case Study, 66

Identification and Quantification of Environmental Issues of Aging Coal-Based Power Plant—Case Study, 277

Investigation of Design Alternatives for a Piled Raft Case History, 629

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Multiple Claims in Construction Law: Educational Case Study, 1061

New Zealand Bridge Scour, 716

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Web-Based Decision Support Systems: Case Study in Project Delivery, 202

Cast in place

Alternate Substructure Systems for Standard Highway Bridges, 65

Constructability Improvement of Bridges Using Stepping Formwork, 235

Performance Investigation of Concrete Manhole Inlets, 1478

Catchments

2D Unit Sediment Graph Theory, 789

Development of Exceedance Probability Streamflow Forecast, 773

International Classification and Codification of Watersheds and River Basins, 1368

Regional Flow Duration Models for Large Number of Ungauged Himalayan Catchments for Planning Microhydro Projects, 809

Cations

Effects of Organic Cation Structure on Behavior of Organocentonites, 603

Caverns

Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

Great Excavations, 1532

Cavitation

Cavitation Prevention with Roughened Surface, 750

Hydraulic Characteristics of Multistage Orifice Tunnels, 729

Cavities

Local Collapse in Soft Rock Bank Cavities, 665

Cementation

Characterization of Cemented Sand in Triaxial Compression, 648

RCC Mix Design—Soils Approach, 976

Cements

About Debonding of Thin Cement-Based Overlays, 982

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Chemical Reactions of Glass Cullet Used as Cement Component, 1021

Curing/Environment Effect on Pore Structure of Blended Cement Concrete, 1017

Effect of Fiber Dispersion on Multiple Cracking of Cement Composites, 314

Elastoplastic Model for Cemented Soils, 633

Enhancing Water Resistance of Cement and Gypsum-Cement Materials, 1013

Heat Conduction Waves in Bilayer Cement Concrete Structures, 417

Lessons from Roman Cement and Concrete, 1059

Lime Cement Column Ground Stabilization for I-15 in Salt Lake City, 1472

Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971

Numerical Model for Minimizing the Risk of Damage in a Repair System, 983

Quality of Building Construction Materials (Cement) in Developing Countries, 43

Role of Air Pressure in Drying of Weakly Permeable Materials, 344

Studies on Several Factors Affecting Hydration and Properties of Lime-Pozzolan Cements, 1025

Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986

Change management

The AEC Dilemma—Exploring the Barriers to Change, 919

The Emerging Role of Project Management, 922

Evolution, Not Revolution, 959

Improving Design Coordination for Building Projects. I: Information Model, 249

Project Change Management System, 958

Channel beds

Bank Profile of Threshold Channels: A Simplified Approach, 881

Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682

Channel bends

Mean Flow and Turbulence in Open-Channel Bend, 746

Channel design

Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682

Design of Cold-formed Channels Subjected to Web Crippling, 1201

Efficient, Robust Design Tool for Open-Channel Flow, 675

Grass-Lined Channels, 690

Channel erosion

Mean Flow and Turbulence in Open-Channel Bend, 746

Channel flow

Dam-Break Waves in Power-Law Channel Section, 699

EDR in Circular Channels, 870

Formulas for Time of Travel in Channel with Upstream Inflow, 820

Integrating Equation of Gradually Varied Flow, 725

Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708

Modification of Canal Flow due to Stream-Aquifer Interaction, 719

Channel morphology

Aggradation at Bridges, 683

Channels, waterways

Bank Profile of Threshold Channels: A Simplified Approach, 881

Deflecting Velocity Rod for Flow Measurements in Small Channels, 898

Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387

Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743

Neural Networks as Routine for Error Updating of Numerical Models, 684

Chemical oxygen demand

Automatic Start-Up of UASB Reactors, 478

Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461

Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459

Chemical reactions

Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438

Chemical Reactions of Glass Cullet Used as Cement Component, 1021

Field Study, Design, and Catalyst Cost of Selective Catalytic Reduction Process, 520

Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9

Chemical spills

Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436

Chemical treatment

Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505

Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS, 529

Chemicals

Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521

China

Ancient Chinese Timber Architecture. I: Experimental Study, 1226

Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227

BOT-Based Approaches to Infrastructure Development in China, 837

Concrete Delivers, 1536

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

The Many Faces of RCC, 1503

Pavement Design in Taklimakan Desert, 1267

Personal Experiences of Cost Control on the China Merchants Plaza Project, 927

Risk Assessment for Construction Joint Ventures in China, 219

Chlorides

Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972

Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968

Repair of Corrosion-Damaged Columns with FRP Wraps, 143

Chlorine

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Predicting the Formation of Chlorinated and Brominated By-Products, 490

Unsteady-State Inverse Chlorine Modeling in Pipe Networks, 730

Chromium

Chromium (III) Isolation from Acid Extract of Tannery Sludge, 1460

Cr(VI) Adsorption onto Hydrous Concrete Particles from Groundwater, 569

Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447

Circular channels

EDR in Circular Channels 870

Circulation

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Solid Circulation Rate in Recirculating Fluidized Bed, 275

Cisterns

Analysis of Overall Perchlorate Removal Rates in Packed-Bed Bioreactors, 487

Automatic Start-Up of UASB Reactors, 478

Bioremediation of Metal-Contaminated Soil in Semicon- tinuous Reactor, 530

Energy-Effectiveness of Nonthermal Plasma Reactors for Toluene Vapor Destruction, 509

Evaluation of Slip Feed System for Vapor-Phase Bioreactors, 553

Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435

Mass Transfer of Ozone in Semibatch Stirred Reactor, 565

Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462

Rotating-Perforated-Tubes Biofilm Reactor for High-Strength Wastewater Treatment, 550

Civil engineering

150 Years of Civil Engineering in the United States of America, 1063

25 Technologies to Watch, 1537

Civil Engineering Education Issues 2001, 1567

Civil Engineering Practice in the Twenty-First Century: Knowledge and Skills for Design and Management, 1568

Civil-Engineering Education: Alternative Paths, 769

Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571

SUBJECT INDEX

Evolutionary Programming for Inverse Problems in Civil Engineering, 189

Global Engineering and Construction Change, 921

International Engineering History and Heritage: Improving Bridges to ASCE's 150th Anniversary, 1594

Machu Picchu: A Civil Engineering Marvel, 1596

Patents: What Every Engineer Should Know, 1519

Rediscovering the Lost City, 1480

Sustainability and Critical Thinking in Civil Engineering Curriculum, 1058

Claims

Construction Contractors Claim Process Framework, 247

Multiple Claims in Construction Law: Educational Case Study, 1061

Structural Equation Model of Construction Contract Dispute Potential, 12

Clarifiers

Conventional and AWT Mixed-Liquor Settling Characteristics, 460

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Classification

International Classification and Codification of Watersheds and River Basins, 1368

Modeling Indirect Statistics of Surface Roughness, 1266

The Simulation of Road Surface Profiles, 1285

Statistical and Genetic Algorithms Classification of Highways, 1283

Clay liners

Determining Irrigation Canal Seepage with Electrical Resistivity, 857

Effect of Desiccation on Compacted Natural Clays, 577

Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Volatile Organic Compound (VOC) Transport through Compacted Clay, 582

Clay soils

Effect of Desiccation on Compacted Natural Clays, 577

Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873

Clays

Erosion Function Apparatus for Scour Rate Predictions, 580

Flume Tests for Scour in Clay at Circular Piers, 759

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496

Interactions between PVC Geomembranes and Compacted Clays, 657

Organoclay with Soil-Bentonite Admixture as Waste Containment Barriers, 523

Prediction of Ground Movements due to Pile Driving in Clay, 576

Role of Microscopic Physicochemical Forces in Large Volumetric Strains for Clay Sediments, 359

Coastal management

Simplified Method for Consolidation Rate of Stone Column Reinforced Foundations, 625

Volatile Organic Compound (VOC) Transport through Compacted Clay, 582

Client relationships

Customer Satisfaction in Home Building, 220

Preparing for a Slowdown, 1491

Quality Function Deployment in Design/Build Projects, 41

Climatic data

Climatological Thresholds of Daily Rainfall, 824

Losses from Weather Extremes in the United States, 1432

Climatology

Climate-Biased Storm-Frequency Estimation, 805

Discretion without Accountability: Politics, Flood Damage, and Climate, 1436

Clogging

Biofilm Growth and Mineral Precipitation in Synthetic Leachate Columns, 647

Surface Drainage for Slope Stabilization, 1615

Coagulation

Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517

Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454

Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511

Coal

Physical and Chemical Evaluation of CCBs for Alternative Uses, 276

Coal fired powerplants

Identification and Quantification of Environmental Issues of Aging Coal-Based Power Plant—Case Study, 277

Coal tar

Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562

Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563

Coanda effect

Hydraulic Performance of Coanda-Effect Screens, 712

Coastal engineering

Coastal Dynamics '01, 1569

Coastal Engineering 2000, 1570

Ports '01, 1601

Shoring Up Coastal Engineering, 1496

Coastal environment

Coastal Dynamics '01, 1569

Development of a Geomaterial from Dredged Bay Mud, 987

Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972

Three-Dimensional Ecological-Eutrophication Model for Singapore, 546

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

Coastal management

Coastal Dynamics '01, 1569

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Coastal morphology

Coastal Dynamics '01, 1569

Mesoscale Model for Morphologic Change at Tidal Inlets, 142

Coastal plains

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Coastal processes

Coastal Dynamics '01, 1569

Coastal Engineering 2000, 1570

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387

Coastal structures

Coastal Engineering 2000, 1570

Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845

N-Type Sediment Bed Response under Standing Wave, 1408

Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030

Suction Removal of Sediment from between Armor Blocks, 696

Coating

Durability Evaluation of Intumescent Coating for Steel Frames, 1004

Numerical Model for Minimizing the Risk of Damage in a Repair System, 983

Study of Noise Barrier Life-Cycle Costing, 1282

Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538

Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539

Codes

Behavior of Composite Concrete Beams with Smooth Interface, 1113

Coefficients

Longitudinal Dispersion Coefficient in Straight Rivers, 754

Recalibration of a Reaeration Equation, 465

Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371

Cohesion

Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261

Cohesionless sediment

Bank Profile of Threshold Channels: A Simplified Approach, 881

Cohesionless soils

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Cohesive sediment

Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495

Role of Microscopic Physicochemical Forces in Large Volumetric Strains for Clay Sediments, 359

Cohesive soils

Rule of Equivalent States in Limit-State Analysis of Soils, 578

Scour of Cohesive Soil by Submerged Circular Turbulent Impinging Jets, 722

Cold regions

Behavior of the Working Fluid in Mechanized Support in Permafrost, 138

Design and Construction of Frost-Protected Shallow Foundations, 1577

Laboratory Observations of Ice Jams in Channel Confluences, 130

Laboratory Study of Anchor Ice Growth, 131

River-Ice Ecology. II: Biological Aspects, 129

Testing and Analysis of Steel Pipe Segments, 1306

Cold weather construction

Taking Treatment to the Extremes, 1550

Tunneling System for the South Pole, 142

Cold weather operations

Taking Treatment to the Extremes, 1550

Cold-formed steel

Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142

Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141

Design of Cold-formed Channels Subjected to Web Crippling, 1201

Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471

Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102

Coliforms

Class A Pathogen Reduction in the SSDML Process, 1446

Collapse

Plastic Frame Analysis under Fire Conditions, 1105

Ultimate Behavior of Bolted T-Stubs. I: Theoretical Model, 1151

Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152

Collisions

Rule-Based Model for Traffic Accident Visualization and Analysis, 187

Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133

Color

Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535

Colorado

Design-Builder Selection for Small Highway Projects, 964

Mile High Design, 1513

Column strength

Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129

Statistical Analyses of Strength of Slender RC Columns, 1071

Strength of Slender Reinforced Concrete Columns under Biaxial Bending, 1159

SUBJECT INDEX

Columns

- Approximate Analysis Method for Modular Tubular Falsework, 1101
- Assessment of Cracking and Collapse for Old Brick Masonry Columns, 1234
- Buckling of Column with Base Attached to Elastic Half-Space, 304
- Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134
- Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- Lime Cement Column Ground Stabilization for I-15 in Salt Lake City, 1472
- Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069
- New Approach for Modeling Confined Concrete. I: Circular Columns, 1157
- New Approach for Modeling Confined Concrete. II: Rectangular Columns, 1158
- Plasticity Model for Concrete under Triaxial Compression, 310
- Practical Method to Prevent Liquid-Column Separation, 724
- Reinforced, Partially, and Fully Prestressed Slender Concrete Columns under Biaxial Bending and Axial Load, 1161
- Runup on Columns in Steep, Deep Water Regular Waves, 1383
- Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135
- Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129
- Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77
- Slenderness Limit for Hybrid FRP-Concrete Columns, 146

Combined sewers

- Challenging Issues in Modeling Deterioration of Combined Sewers, 844
- Nature and Dynamics of Water Sediment Interface in Combined Sewers, 458
- Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358
- Street Surface Storage for Control of Combined Sewer Surcharge, 1353
- Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379
- Urban Drainage Modelin, 1618

Communication skills

- Differences in Nonverbal Communication Styles between Cultures: The Latino-Anglo Perspectives, 935
- Engineering Your Future, 1579

Community development

- Can This Town Survive? Case Study of a Buried Philippine Town, 1428
- Community Service Project Planning for ASCE Student Chapters/ Clubs, 1066

Commute

- Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324

Compacted soils

- Interactions between PVC Geomembranes and Compacted Clays, 657

Compaction

- Behavior of Compacted Soil-Fly Ash-Carbide Lime Mixtures, 640
- Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443
- Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302
- Model of Compaction Grouting, 658

Comparative studies

- Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108
- Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494
- Comparison of Cultures in Construction and Manufacturing, 957
- Comparison of Fixed and Rotating Spray Plate Sprinklers, 886
- Comparison of Models for Computing Drainage Discharge, 904
- Comparison of Two Maintainability Programs, 239
- Contemporary and Traditional Wall-System Failures, 1035
- Evaluation of Roundabout Performance Using SIDRA, 1271
- Strategic Management in Engineering Organizations, 948

Competition

- Case-Based Reasoning Approach in Bid Decision Making, 214
- From Competitors to Partners, 1500

Compliance

- Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970

Composite beams

- Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- Behavior of Composite Concrete Beams with Smooth Interface, 1113
- Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144
- Concrete-Steel Composite Coupling Beams. II: Subassembly Testing and Design Verification, 1145
- Inelastic Analysis of Steel Frames with Composite Beams, 1094
- Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080
- Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286

Composite columns

- Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150
- Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149
- Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68

Composite masonry

- Radar Testing of a Masonry Composite Structure with Sand and Water Backfill, 87

Composite masonry

Composite materials

- Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimen, 324
- Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144
- Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108
- Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208
- Composites in Construction: A Reality, 1573
- Computational Modeling of Strand-Based Wood Composites, 375
- Damage Quantification in Metal Matrix Composites, 311
- Design of Composite Surrogate Mirror Support Structure, 30
- Driveability of FRP Composite Piling, 586
- Effect of Fiber Dispersion on Multiple Cracking of Cement Composites, 314
- Effective 3D Constitutive Relations of Composites with Evolving Damage, 353
- Effects of Random Material Properties on Buckling of Composite Plates, 378
- Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409
- Erection of Cable-Stayed Bridges Having Composite Decks with Precast Concrete Slabs, 95
- Flexural Behavior of Composite Reinforced Concrete Elements, 1002
- Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123
- Higher-Order Homogenization of Initial/Boundary-Value Problem, 420
- Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
- Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100
- Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383
- Moiré Interferometry Analysis of Fiber Debonding, 350
- Multiscale Analysis of Multiple Damage Mechanisms Coupled with Inelastic Behavior of Composite Materials, 351
- Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182
- Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147
- Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148
- Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158
- Punching Shear Strength of Simply Supported Ferrocement Slabs, 1022
- Reliability of Timber Fender Systems in Waterfront Facilities, 1099
- Shear Strength of Concrete-Encased Composite Structural Members, 1207
- Slab Effects in SMRF Retrofit Connection Test, 1098

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167

Strengthening of a Steel Bridge Girder Using CFRP Plates, 114

Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412

Composite structures

- Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214
- Design of Composite Surrogate Mirror Support Structure, 30
- Drivability of Glass FRP Composite Piling, 149
- Gain-Scheduled Adaptive Control for Seismically Excited Hybrid Structures, 1219
- Radar Testing of a Masonry Composite Structure with Sand and Water Backfill, 87
- Refined Global Approximation Theory of Multilayered Plates and Shells, 292
- Reliability Analysis of Rotorcraft Composite Structures, 33
- Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191
- Three-Dimensional Micromechanics-Based Constitutive Framework for Analysis of Pultruded Composite Structures, 361

Compressibility

Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655

Compression

- Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274
- Stochastic Model for Time-Dependent Compression of Particulate Media, 339
- Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076

Compression tests

- Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265
- Compression Tests on Cold-Formed Angles Loaded Parallel with a L-g, 1141
- Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593
- Slenderness Limit for Hybrid FRP-Concrete Columns, 146

Compressive strength

- Compressive Behavior of Concrete with Vitrified Soil Aggregate, 1018
- Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135
- High-Temperature Compressive Strength of Steel Fiber High-Strength Concrete, 998
- Long-Term Strength and Durability of Soil Cement, 988
- Performance and Leaching Assessment of Flowable Slurry, 474
- Simplified Method to Assess Freeze-Thaw Durability of Soil Cement, 1000
- Statistical Analyses of Strength of Slender RC Columns, 1071
- Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153

SUBJECT INDEX

Concrete

Computation

- Adaptive FE Analysis of RC Shells. I: Theory, 418
- Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359
- Comparison of Models for Computing Drainage Discharge, 904
- Computational Modeling of Strand-Based Wood Composites, 375
- Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399
- Confined Aquifer Parameters from Temporal Derivative of Drawdowns, 710
- Design of Minimum Seepage-Loss Nonpolygonal Canal Sections, 871
- Dimensionless Curves for Normal-Depth Calculations in Canal Sections, 907
- DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703
- Effective 3D Constitutive Relations of Composites with Evolving Damage, 353
- Extreme Value of Response to Nonstationary Excitation, 319
- Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- Interval Computing Method for Analyzing Field-Scale Solute Transport, 828
- New Algorithm for Hydraulic Calculation in Irrigation Laterals, 890
- A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349
- Optimal Furrow Design. I: Time of Advance Equation, 883
- Optimal Furrow Design. II: Explicit Calculation of Design Variables, 884
- Regression Model for Back-Calculation of Rigid-Pavement Properties, 1299
- Role of ASCE in the Advancement of Computing in Civil Engineering, 200
- Unsaturated-Flow Simulation with Green Element Models, 697

Computer aided design

- Computer-Generated Building Data: Topological Information, 203
- Standards Usage Language (SUL), 186

Computer aided instruction

- Development of a Teaching Tool for Building Construction, 38

Computer aided operations

- Damage Quantification in Metal Matrix Composites, 311
- Infrastructure of Partnering for Construction, 966

Computer aided simulation

- VIRCON: Interactive System for Teaching Construction Management, 218
- Volumetric Study of Reflected Glare from Glass Curtain Walls of Buildings, 48

Computer analysis

- Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79

Computer applications

- Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720

- Improving Design Coordination for Building Projects. I: Information Model, 249

- Improving Design Coordination for Building Projects. II: A Collaborative System, 250

- Role of ASCE in the Advancement of Computing in Civil Engineering, 200

- Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266

- Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267

- Urban Drainage Modeling, 1618

Computer languages

- Standards Usage Language (SUL), 186

Computer models

- Computer Model for Life-Cycle Cost Analysis of Roadway Pavements, 190
- Impact of Turbidity Currents on Reservoir Sedimentation, 670
- Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31
- Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445
- Rule-Based Model for Traffic Accident Visualization and Analysis, 187

Computer programs

- Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294

Computer software

- Analysing Performance of ETC Plazas Using New Computer Software, 206
- Project Management in Construction: Software Use and Research Directions, 222
- User Interface for Ground-Water Modeling: ArcView Extension, 802

Concentrated loads

- Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117
- Finite-Element Modeling of Beams under Concentrated Loading, 1092
- Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305

Concrete

- About Debonding of Thin Cement-Based Overlays, 982
- Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214
- Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373
- Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162
- Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274
- Chemical Reactions of Glass Cullet Used as Cement Component, 1021
- Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208
- Concrete Fracture Process Zone Characterization with Fiber Optics, 335
- Cr(VI) Adsorption onto Hydrous Concrete Particles from Groundwater, 569
- Curing/Environment Effect on Pore Structure of Blended Cement Concrete, 1017

- Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232
- Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981
- Direct Tensile Tests on Concrete-like Materials: Structural and Constitutive Behaviors, 320
- Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993
- Effect of Variables on Shear Strength of Concrete Beams, 1029
- Evaluation of Bond Properties in Concrete Repair Materials, 980
- Flexural Behavior of Circular Concrete Filled FRP Shells, 1165
- Flexural Performance of Concrete Beams Reinforced with FRP Grids, 145
- Fragility Analysis of Concrete Gravity Dams, 840
- Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500
- Investigations of Sulfuric Acid Corrosion of Concrete. II: Electrochemical and Visual Observations, 501
- Lessons from Roman Cement and Concrete, 1059
- Mode I Fracture Behavior in Concrete: Nonlocal Damage Modeling, 356
- Modeling of Concrete Cracking Induced by Steel Expansion, 990
- New Approach for Modeling Confined Concrete. I: Circular Columns, 1157
- New Approach for Modeling Confined Concrete. II: Rectangular Columns, 1158
- Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182
- Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147
- Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148
- Numerical Analysis of Multiple Cracks in Concrete Using the Discrete Approach, 1195
- Performance Investigation of Concrete Manhole Inlets, 1478
- Preliminary Design System for Concrete Box Girder Bridges, 194
- Reinforced, Partially, and Fully Prestressed Slender Concrete Columns under Biaxial Bending and Axial Load, 1161
- Shear Strength of Concrete-Encased Composite Structural Members, 1207
- Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163
- Simulation of Structural Concrete under Cyclic Load, 1231
- Size-Effect on Fatigue in Bending of Concrete, 1026
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154
- Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973
- Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009
- Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371
- Triaxial Tests of Fiber-Reinforced Concrete, 1012
- Concrete aggregates**
- Assessing Frost Resistance of Concrete Aggregates in Minnesota, 139
- Compressive Behavior of Concrete with Vitriified Soil Aggregate, 1018
- Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023
- Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971
- Resilient Response of Recycled Concrete Road Aggregates, 1311
- Concrete blocks**
- Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075
- Source of Jointing Sand for Concrete Block Pavement, 999
- Concrete columns**
- Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169
- Behavior of FRP Jacketed Concrete Columns under Eccentric Loading, 159
- Energy-Based Methodology for Ductile Design of Concrete Columns, 1229
- Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- Moment Resistance of Steel I-Beam to CFT Column Connections, 1204
- Plastic Hinge Analysis, 1196
- Seismic Performance of RC Bridge Column under Repeated Ground Motions, 108
- Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230
- Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072
- Strength of Slender Reinforced Concrete Columns under Biaxial Bending, 1159
- Concrete construction**
- Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050
- Simulation as a Tool for Resource Management, 226
- Concrete deterioration**
- Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841
- Concrete durability**
- Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements, 996
- Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972
- Making the Most of HPC, 1489
- Materials Considerations in FRP Rehabilitation of Concrete Structures, 979
- Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986
- Concrete masonry**
- Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162
- Concrete pavements**
- Heat Conduction Waves in Bilayer Cement Concrete Structures, 417
- Influence of Supporting Base Characteristics on Shrinkage-Induced Stresses in Concrete Pavements, 1312
- Source of Jointing Sand for Concrete Block Pavement, 999

SUBJECT INDEX

Concrete, reinforced

- Strength and Durability of Roller-Compacted HVFA Concrete Pavements, 1477
- Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316
- Thermal Cracking of Viscoelastic Asphalt-Concrete Pavement, 358
- Concrete piles**
- Load Tests on Prestressed Precast Concrete and Timber Piles, 666
- Concrete pipes**
- Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611
- Concrete, precast**
- Alternate Substructure Systems for Standard Highway Bridges, 65
- Just-in-Time Management of Precast Concrete Components, 270
- Load Tests on Prestressed Precast Concrete and Timber Piles, 666
- Standard Practice for Direct Design of Buried Precast Concrete Box Sections, 1609
- Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610
- Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611
- Concrete, prestressed**
- Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88
- Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91
- M-P- Φ Diagrams for Reinforced, Partially, and Fully Prestressed Concrete Sections under Biaxial Bending and Axial Load, 1160
- Nonlinear Flexural Behavior of Prestressed Concrete Girder Bridges, 89
- Preliminary Design of the Prestressed Concrete Stress Ribbon Bridge, 83
- Realistic Long-Term Prediction of Prestress Forces in PSC Box Girder Bridges, 1198
- Response of Prestressed Concrete I-Girder Bridges to Live Load, 54
- Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118
- Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13
- Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283
- Concrete properties**
- Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994
- Concrete, reinforced**
- Adaptive FE Analysis of RC Shells. I: Theory, 418
- Adaptive FE Analysis of RC Shells. II: Applications, 419
- Analytical Model for Predicting Shear Strength of Squat Walls, 1074
- Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169
- Behavior of Composite Concrete Beams with Smooth Interface, 1113
- Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117
- Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154
- Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144
- CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168
- Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073
- Concrete Beams Strengthened with Externally Bonded FRP Plates, 148
- Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144
- Concrete-Steel Composite Coupling Beams. II: Subassembly Testing and Design Verification, 1145
- Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466
- Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376
- Diagonal Shear Failure and Size Effect in RC Beams without Web Reinforcement, 1156
- Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194
- Distress of RC Structure due to Poor Quality Control and Overloading, 1033
- Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070
- Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112
- Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972
- Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212
- Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69
- Failure Criterion for RC Members under Biaxial Bending and Axial Load, 1177
- Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170
- Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309
- Flexural Behavior of Composite Reinforced Concrete Elements, 1002
- Fracture Analysis of FRP Reinforced Concrete Beams, 349
- High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164
- Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
- Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- Interface Shear Stress: A New Design Criterion for Plate Debonding, 147
- Load Bearing Capacity of Reinforced Concrete Beams Subjected to Dynamic Cyclic Loads, 388
- Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318
- Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597
- Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069
- Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851

- New Model for Shear Failure of RC Interior Beam-Column Connections, 1089
- Nonlinear Analysis of RC Beam Subject to Cyclic Loading, 1235
- Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
- On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315
- Orienting Fibers by Extrusion in Reinforced Reactive Powder Concrete, 345
- Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075
- Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Plasticity Model for Concrete under Triaxial Compression, 310
- Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215
- Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050
- Proportioning of Earthquake-Resistant RC Building Structures, 1088
- RC Structural Walls Designed According to UBC and Displacement-Based Methods, 1131
- Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading, 160
- Response of RC T-Beams Strengthened for Flexure with Staggered CFRP Plates, 164
- Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236
- Seismic Energy Dissipators for RC Panels: Analytical Studies, 374
- Seismic Fragility of RC Structural Walls: Displacement Approach, 1097
- Seismic Reliability of Masonry Infilled RC Frames, 1106
- Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079
- Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams, 1237
- Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77
- Shear Strength of Normal Strength Concrete Beams Reinforced with Deformed GFRP Bars, 173
- Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Shear Strengthening of Reinforced Concrete Beams with FRP Rods, 155
- Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163
- Slenderness Limit for Hybrid FRP-Concrete Columns, 146
- Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172
- Statistical Analyses of Strength of Slender RC Columns, 1071
- Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072
- Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97
- Strength of Slender Reinforced Concrete Columns under Biaxial Bending, 1159
- Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077
- Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474
- Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13
- Three-Dimensional Inelastic Response of an RC Building during the Northridge Earthquake, 1128
- Three-Dimensional Modeling of Anchorage Zones in Reinforced Concrete, 357
- Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283
- Ultimate Response of RC Beams Strengthened with CFRP Plates, 156
- Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076
- Use of Electrodeposition for Repair of Concrete with Shrinkage Cracks, 985
- Concrete slabs**
- Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56
- Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117
- Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031
- Design Recommendations for Externally Restrained Highway Bridge Deck, 84
- Diagnostic Load Testing of Two-Way PostTensioned Concrete Slab, 1470
- Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81
- Erection of Cable-Stayed Bridges Having Composite Decks with Precast Concrete Slabs, 95
- External FRP PostStrengthening of Scaled Concrete Slabs, 150
- Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984
- Post-Finite Element Prediction Strategies for Engineering Structures, 1228
- Prototype Diagnosis Expert System with Knowledge Refinement Function, 185
- Slab Effects in SMRF Retrofit Connection Test, 1098
- Concrete structures**
- Apparent Periods of a Building. I: Fourier Analysis, 1132
- Apparent Periods of a Building. II: Time-Frequency Analysis, 1133
- Applied Element Simulation of RC Structures under Cyclic Loading, 1220
- Concrete Delivers, 1536
- Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005
- Heat Conduction Waves in Bilayer Cement Concrete Structures, 417
- Localization Issues in Force-Based Frame Elements, 1216
- Materials Considerations in FRP Rehabilitation of Concrete Structures, 979
- Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318
- Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597
- Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474

SUBJECT INDEX

- Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118
- Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13
- Three-Dimensional Inelastic Response of an RC Building during the Northridge Earthquake, 1128
- What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337
- Concrete technology**
- Making the Most of HPC, 1489
- Cone penetration**
- Piezocene Penetration Testing in Atlantic Piedmont Residuum, 575
- Cone penetration tests**
- Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585
- Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11
- SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654
- Configuration**
- An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298
- System Reliability-Based Configuration Optimization of Trusses, 1180
- Confinement**
- Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169
- Conflict**
- Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953
- Making Watershed Partnerships Work: A Review of the Empirical Literature, 1376
- A Model for Understanding, Preventing, and Resolving Project Disputes, 237
- Conical bodies**
- Elastic Buckling of Multilayered Anisotropic Conical Shells, 19
- Connecticut**
- Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281
- Connections**
- Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214
- Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144
- Cyclic Stability Criteria for Steel Moment Connections with Reduced Beam Section, 1188
- Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8
- Moment Resistance of Steel I-Beam to CFT Column Connections, 1204
- New Model for Shear Failure of RC Interior Beam-Column Connections, 1089
- Posttensioned Seismic-Resistant Connections for Steel Frames, 1084
- Slab Effects in SMRF Retrofit Connection Test, 1098
- Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173
- Connections, bolted**
- Stiffness Modeling of Bolted T-Stub Connection Components, 1130

Constitutive relations

- Ultimate Behavior of Bolted T-Stubs. I: Theoretical Model, 1151
- Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152
- Connections, flexible**
- Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286
- Connections, joints**
- Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134
- Modeling of Finger-Joint Failure in Glued-Laminated Timber Beams, 1176
- Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069
- Withdrawal Strength of Threaded Nails, 1124
- Connections, semi-rigid**
- Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227
- Energy Dissipation at PR Frames under Seismic Loading, 1140
- Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415
- Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082
- Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221
- Connections, welded**
- Analytical Modeling and Seismic Design of Steel Moment Connections with Welded Straight Haunch, 1189
- Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086
- Effect of Local Details on Ductility of Welded Moment Connections, 1190
- Fatigue Behavior of Welded Diaphragm-to-Beam Connections, 1202
- Consistency**
- Establishing Practical Approach for Design Consistency Evaluation, 1291
- Consolidation**
- Simplified Method for Consolidation Rate of Stone Column Reinforced Foundations, 625
- Constitutive equations**
- Buckling of Column with Base Attached to Elastic Half-Space, 304
- Plasticity Model for Sand under Small and Large Cyclic Strains, 660
- Constitutive models**
- Complete Triaxial Stress-Strain Curves of High-Strength Concrete, 995
- Constitutive Behavior of Geosynthetic Interfaces, 645
- Implementation of Porous Media Formulation for Geomaterials, 296
- Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284
- Plasticity Model for Concrete under Triaxial Compression, 310
- Constitutive relations**
- Drained Cyclic Behavior of Sand with Fabric Dependence, 408

Constitutive relations

Effective 3D Constitutive Relations of Composites with Evolving Damage, 353

Constraints

Fuzzy Multistage Optimization of Large-Scale Trusses, 1225

Constructability

Benefits of Constructability on Construction Projects, 244

Constructability Improvement of Bridges Using Stepping Formwork, 235

Construction

Computer-Generated Building Data: Topological Information, 203

Construction Coordination Activities: What is Important and What Consumes Time, 963

Construction Surety Bonding, 238

Developing a Draft Schedule Using Templates and Rules, 257

Development of a Teaching Tool for Building Construction, 38

Estimating Labor Production Rates for Industrial Construction Activities, 271

Exchange Rate Risk Management in International Construction Ventures, 961

A Glass Act, 1482

Ground Movements Associated with Wall Construction: Case Histories, 668

Human Effects in Construction Contract Price Forecasting: Experience and Experiential Learning Styles, 269

Improvement Algorithm for Limited Space Scheduling, 224

A Model for Understanding, Preventing, and Resolving Project Disputes, 237

Object-Oriented Model for Repetitive Construction Scheduling, 234

Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600

Project Management in Construction: Software Use and Research Directions, 222

Replacement Strategy, 1534

Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610

Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611

Structural Equation Model of Construction Contract Dispute Potential, 12

Technological Trajectories of Construction Innovation, 50

Terminal Island Turnaround, 1528

Visualizing Simulated Construction Operations in 3D, 210

Construction companies

Construction Management Practices Are Slowly Changing, 916

Construction costs

Application of TQM to Environmental Construction, 960

Cost Analysis between SABER and Design Bid Build Contracting Methods, 253

Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231

2001 ASCE TRANSACTIONS

Role of Marketing Intelligence in Making Pricing Policy in Construction, 956

Value Engineering and Optimal Building Projects, 42

Construction equipment

Transporting Hong Kong, 1490

Tunnel with Vision, 1492

Construction industry

The AEC Dilemma—Exploring the Barriers to Change, 919

Building Project Scope Definition Using Project Definition Rating Index, 51

Business Strategy: Ideas for Construction Master's Degrees, 920

Comparison of Cultures in Construction and Manufacturing, 957

Comparison of Linear Scheduling Method (LSM) and Critical Path Method (CPM), 255

Construction Contractors Claim Process Framework, 247

Construction Management Practices Are Slowly Changing, 916

Effectiveness of the MCAA's Project Management Course, 1065

Evaluation of Drug Testing in the Workplace: Study of the Construction Industry, 263

Finding Your Way through Life, 917

Global Engineering and Construction Change, 921

Improving Objectivity in Procurement Selection, 955

Knowledge-Based Approach to Construction Project Risk Management, 192

Marketing Your Web Site, 1535

Meeting Customer Expectations in the Construction Industry, 925

Multiple Claims in Construction Law: Educational Case Study, 1061

Project Change Management System, 958

Quality Function Deployment in Design/Build Projects, 41

Risk Assessment for Construction Joint Ventures in China, 219

Strategic Management in Engineering Organizations, 948

Technological Intervention to Eliminate Back Injury Risks for Nailing, 240

Time-Overrun Factors in Nigerian Construction Industry, 261

Why Industry Needs Asset Management Tools, 177

Construction management

Algorithm for Determining Controlling Path Considering Resource Continuity, 207

Asphalt Works Subcontracting Disputes in Large Construction Programs, 1038

Benefits of Constructability on Construction Projects, 244

Comparison of Two Maintainability Programs, 239

Construction Management Practices Are Slowly Changing, 916

Cost Optimization in Projects with Repetitive Nonserial Activities, 232

Crisis Management in Construction Projects, 1576

High-Tech Isolation, 1514

Improving Design Coordination for Building Projects. I: Information Model, 249

SUBJECT INDEX

Contaminants

- Improving Design Coordination for Building Projects. II: A Collaborative System, 250
- Just-in-Time Management of Precast Concrete Components, 270
- Modeling Construction Operations with RISim, 209
- Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243
- Optimizing Resource Utilization for Repetitive Construction Projects, 212
- Partnering in Construction: Improvement through Integration and Collaboration, 928
- Procurement Protocols for Public-Private Partnered Projects, 252
- Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266
- Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267
- Simulation as a Tool for Resource Management, 226
- VIRCON: Interactive System for Teaching Construction Management, 218
- Web-Based Construction Document Processing via a Malleable Frame, 191
- Construction materials**
 - Composites in Construction: A Reality, 1573
 - Construction and Materials Issues 2001, 1575
 - Development of a Geomaterial from Dredged Bay Mud, 987
 - Emerging Materials for Civil Infrastructure: State of the Art, 1578
 - GIS-Based Cost Estimates Integrating with Material Layout Planning, 245
 - Making the Most of HPC, 1489
 - Quality of Building Construction Materials (Cement) in Developing Countries, 43
- Construction methods**
 - Bridge to the Future, 1554
 - Cliff-Hanger, 1481
 - Crisis Management in Construction Projects, 1576
 - Energy Tax and Choice of House Construction Techniques in India, 847
 - Global Stability Analysis for Bird-Shaped Girders, 1107
 - Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44
 - The Long Arch, 1511
 - Transporting Hong Kong, 1490
- Construction planning**
 - Applying Modified Minimum Moment Method to Multiple Resource Leveling, 233
 - Construction Delay Computation Method, 217
 - Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects, 211
 - GIS-Based Cost Estimates Integrating with Material Layout Planning, 245
 - Model for Evaluating Bridge Construction Plans, 258
 - Optimum Planning of Highway Construction under A + B Bidding Method, 242
 - Project Management in Construction: Software Use and Research Directions, 222
 - Understanding Project Site Conditions, 1468
 - VIRCON: Interactive System for Teaching Construction Management, 218

- Construction site accidents**
 - The Case of a Broken Plank, 1040
 - Development of Causal Model of Construction Accident Causation, 251
- Construction sites**
 - Applications of Horizontal Characterization Techniques in Trenchless Construction, 268
 - Dust Suppression Using Truck-Mounted Water Spray System, 216
 - Genetic Algorithm for Optimizing Supply Locations around Tower Crane, 248
 - Improvement Algorithm for Limited Space Scheduling, 224
- Consultants**
 - Engineering Your Future, 1579
 - Relevance of the Network Factor in the Selection of Consultants, 1068
- Consulting services**
 - Relevance of the Network Factor in the Selection of Consultants, 1068
- Contact pressure**
 - Micromechanical Analysis of the Shear Behavior of a Granular Material, 396
- Contacts**
 - Asymmetric Low-Velocity Impact of a Finite Layer, 336
 - Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291
- Container shipping**
 - Effect of Seasonal Factors on Performance of Container Terminals, 1394
 - Evaluation of Handling Systems for Container Terminals, 1398
- Containment**
 - Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
 - Oil Containment by Boom in Waves and Wind. II: Waves, 1405
 - Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406
- Containment vessels**
 - Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387
- Contaminants**
 - Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562
 - Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563
 - Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472
 - Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495
 - Effects of Organic Cation Structure on Behavior of Organobentonites, 603
 - Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453
 - Groundwater Contamination by Organic Pollutants, 1587
 - Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518

Contaminants

- Identification of Contaminant Source Location and Release History in Aquifers, 799
- Interaction of Soil Air Permeability and Soil Vapor Extraction, 434
- Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446
- Measuring Phytoremediation Parameters for Volatile Organic Compounds: Focus on MTBE, 1453
- Plant Uptake of Methyl tert-Butyl Ether (MTBE) from Ground Water, 1455
- Plant-Enhanced Remediation of Glycol-Based Aircraft Deicing Fluids, 1456
- Unsteady-State Inverse Chlorine Modeling in Pipe Networks, 730
- Uptake, Selectivity, and Inhibition of Hydroponic Treatment of Contaminants, 491
- Uranium Speciation, Plant Uptake, and Phytoremediation, 1454
- Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Contamination

- Aerial Radiation Survey at Military Range, 1448
- Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458
- Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS, 529

Continuing education

- Assessment of Communications and Collaborative Learning in Civil Engineering Education, 1064
- Effectiveness of the MCAA's Project Management Course, 1065
- Hydraulic Engineering Education: Evolving to Meet Needs, 768

Continuum mechanics

- Effects of Preloading on Brittle Solids, 279

Contract terms

- Construction Surety Bonding, 238

Contraction

- Choked Flows through Short Contractions, 728

Contractors

- Construction Contractors Claim Process Framework, 247
- General Approach to Payment Adjustments for Flexible Pavements, 1258
- Just-in-Time Management of Precast Concrete Components, 270
- Meeting Customer Expectations in the Construction Industry, 925
- Optimizing Owner/Contractor Core Competencies for Capital Programs, 950
- Quality Function Deployment in Design/Build Projects, 41

Contracts

- Construction Surety Bonding, 238
- Cost Analysis between SABER and Design Bid Build Contracting Methods, 253
- Design-Build Selection for Small Highway Projects, 964
- A Model for Understanding, Preventing, and Resolving Project Disputes, 237
- Small Firms, Big Dig, 1515

2001 ASCE TRANSACTIONS

- Structural Equation Model of Construction Contract Dispute Potential, 12

Control methods

- Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413

Control systems

- Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561
- Multiobjective Optimal Structural Vibration Control Using Fuzzy Logic Control System, 1224

Conversion

- Pilot-Scale Evaluation of H₂O₂ Injection to Control NO_x Emissions, 471

Conveyors

- Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377

Cooling

- Characteristics of a Density Current in a Cooling Lake Sidearm, 272

Coordination

- Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294
- Construction Coordination Activities: What is Important and What Consumes Time, 963
- Partnering in Construction: Improvement through Integration and Collaboration, 928
- Spatial Data, Coordinate Systems, and the Science of Measurement, 1253

Copper

- Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517

Core

- Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412

Corners

- In-Plane Analysis of Masonry Infill Materials, 1479

Corporate planning

- Corporate Governance and Role of CEO in Engineering Companies, 943

Correlation

- Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443
- Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795
- Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Corrosion

- Cavitation Prevention with Roughened Surface, 750
- CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168
- Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972
- Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993
- Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165
- Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500

SUBJECT INDEX

Investigations of Sulfuric Acid Corrosion of Concrete. II: Electrochemical and Visual Observations, 501
Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318
Repair of Corrosion-Damaged Columns with FRP Wraps, 143
Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Corrosion control
Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968

Corrugating
Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208

Cost allocation
Overinvestment When Allocating Costs of Wastewater Treatment Plant, 1371

Cost analysis
Computer Model for Life-Cycle Cost Analysis of Roadway Pavements, 190
Cost Analysis between SABER and Design Bid Build Contracting Methods, 253
Energy-Effectiveness of Nonthermal Plasma Reactors for Toluene Vapor Destruction, 509
Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231
Reliability-Based Life-Cycle Management of Highway Bridges, 176
Selection of Sprinkler Lateral for Shorter Life Cycle, 893
US-Japan Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems (1st: 2000: Honolulu, Hawaii), 1619

Cost control
Cost Optimization in Projects with Repetitive Nonserial Activities, 232
Cost-Effective Landfill Closure: Boston's "Menino Project", 1444
Defining Cost/Schedule Performance Indices and Their Ranges for Design Projects, 954
Hydraulic Infrastructures Design Using Simulated Annealing, 839
An Improved Real-Coded GA for Groundwater Bioremediation, 198
New Project Procurement Process, 962
Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908
Optimization of Hollow-Fiber Design and Low-Pressure Membrane System Operation, 489
Personal Experiences of Cost Control on the China Merchants Plaza Project, 927
Probabilistic Optimal-Cost Scheduling, 262
Resource Scheduling Using Neural Dynamics Model of Adeli and Park, 213
Value Engineering and Optimal Building Projects, 42
Water Distribution Network Renewal Planning, 175

Cost estimates
GIS-Based Cost Estimates Integrating with Material Layout Planning, 245
Groundwater and Soil Remediation: Process Design and Cost Estimating of Proven Technologies, 1586
Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231

Cracking

Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266

Costa Rica
Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365

Costs
The AEC Dilemma—Exploring the Barriers to Change, 919
Cognizance of Visual Design Management in Life-Cycle Project Management, 947
Competitive Edge, 1529
Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274
External Costs of Air Emissions from Transportation, 836
Genetic Algorithm Approach for Transit Route Planning and Design, 1278
Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326
Optimal Furrow Design. II: Explicit Calculation of Design Variables, 884

Coupled systems
Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080

Cover plates
Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086

Coverings
About Debonding of Thin Cement-Based Overlays, 982
Finding a Better Cover, 1484
Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318

Crack propagation
Avalanche Statistics of Interface Crack Propagation in Fiber Bundle Model: Characterization of Cohesive Crack, 352
Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309
Numerical Analysis of Multiple Cracks in Concrete Using the Discrete Approach, 1195
Numerical Methodology in Fatigue Analysis: Applications, 1260
Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096
Thermomechanical Behavior of Thermoviscoelastic Solid during Dynamic Crack Propagation, 355

Cracking
Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373
Application of a Neural Network Model to Forecast Short-Term Pavement Crack Condition: Florida Case Study, 853
Assessment of Cracking and Collapse for Old Brick Masonry Columns, 1234
Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085
Concrete Fracture Process Zone Characterization with Fiber Optics, 335
Cracking and Fracture of Suspension Bridge Wire, 127
Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031
Dam within a Dam, 1555

Cracking

- Damage Quantification in Metal Matrix Composites, 311
- Decomposition of Damage Tensor in Continuum Damage Mechanics, 386
- Diagonal Shear Failure and Size Effect in RC Beams without Web Reinforcement, 1156
- Direct Tensile Tests on Concrete-like Materials: Structural and Constitutive Behaviors, 320
- Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070
- Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112
- Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993
- Effect of Fiber Dispersion on Multiple Cracking of Cement Composites, 314
- Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78
- Effect of Variables on Shear Strength of Concrete Beams, 1029
- Effective 3D Constitutive Relations of Composites with Evolving Damage, 353
- Effects of Preloading on Brittle Solids, 279
- Evaluation of Bond Properties in Concrete Repair Materials, 980
- Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425
- Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318
- Modeling of Concrete Cracking Induced by Steel Expansion, 990
- Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
- Numerical Analysis of Multiple Cracks in Concrete Using the Discrete Approach, 1195
- Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Prototype Diagnosis Expert System with Knowledge Refinement Function, 185
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Size-Effect on Fatigue in Bending of Concrete, 1026
- Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077
- Thermal Cracking of Viscoelastic Asphalt-Concrete Pavement, 358
- Use of Electrodeposition for Repair of Concrete with Shrinkage Cracks, 985
- What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337

Cranes

- Genetic Algorithm for Optimizing Supply Locations around Tower Crane, 248

Creep

- Consistent Procedure for Creep and Shrinkage Effects in RC Frames, 1155
- Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970
- Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300
- Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371

2001 ASCE TRANSACTIONS

- Time-Dependent Creep Behavior of Particulate Materials, 997

Critical flow

- Choked Flows through Short Contractions, 728
- Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682
- Critical Flow Velocity in Slurry Transporting Horizontal Pipelines, 740

Critical load

- Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321
- Stability Analysis of Box-Girder Cable-Stayed Bridges, 62
- Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288

Critical path method

- Comparison of Linear Scheduling Method (LSM) and Critical Path Method (CPM), 255
- Project Management in Construction: Software Use and Research Directions, 222

Crop production

- Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semiarid Areas, 900

Crop yield

- Regional Alfalfa Yield, ET_c , and Water Value in Western States, 874

Crops

- Model for Estimating Evaporation and Transpiration from Row Crops, 901

Cross sections

- Bank Profile of Threshold Channels: A Simplified Approach, 881
- Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103
- Dam-Break Waves in Power-Law Channel Section, 699
- Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150
- Evaluation of Numerical Models of Flood and Tide Propagation in Channels, 744
- Exact Static Analysis of Helicoidal Structures of Arbitrary Shape and Variable Cross Section, 1217
- Formulas for Time of Travel in Channel with Upstream Inflow, 820
- Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149
- Nonuniform Torsion of Composite Bars by Boundary Element Method, 387

Crossflow

- Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702
- Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745
- Performance of Tee Diffusers in Shallow Water with Crossflow, 674
- Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480

Crude oil

- Bioremediation Kinetics of Crude Oil at 5° C, 531

SUBJECT INDEX

Oil Spill Remediation Using Magnetic Separation, 484

Crushing

In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299

Curing

Curing/Environment Effect on Pore Structure of Blended Cement Concrete, 1017

Currents

Coastal Engineering 2000, 1570

Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416

Neural Networks as Routine for Error Updating of Numerical Models, 684

Scour around Pile in Combined Waves and Current, 705

Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413

Curricula

Bibliography for Teaching Hydraulic Design, 770

Hydraulic Design Example—Canal and Pipeline Inlet, 767

Hydraulic Engineering Education: Evolving to Meet Needs, 768

Real-World Projects Reinforce Fundamentals in the Classroom, 761

Sustainability and Critical Thinking in Civil Engineering Curriculum, 1058

Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763

Teaching of Hydraulic Design at University of Newcastle upon Tyne, 764

What Do Students Need in Hydraulic Design Projects?, 760

Curvature

Dimensionless Curves for Normal-Depth Calculations in Canal Sections, 907

Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107

Simple Curvilinear Method for Numerical Models of Open Channels, 757

Curve fitting

Development of Integrated Sediment Rating Curves Using ANNs, 672

Curved beams

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Cyclic loads

Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093

Applied Element Simulation of RC Structures under Cyclic Loading, 1220

Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085

Bounding Surface Model for Geosynthetic Reinforcements, 390

Concrete-Steel Composite Coupling Beams: I: Component Testing, 1144

Concrete-Steel Composite Coupling Beams: II: Subassembly Testing and Design Verification, 1145

Cyclic Analysis of Wood Shear Walls, 1123

Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232

Damage of Marble from Cyclic Loading, 1028

Drained Cyclic Behavior of Sand with Fabric Dependence, 408

Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110

Load Bearing Capacity of Reinforced Concrete Beams Subjected to Dynamic Cyclic Loads, 388

Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608

Nonlinear Analysis of RC Beam Subject to Cyclic Loading, 1235

Performance of Geosynthetic-Reinforced Asphalt Pavements, 587

Plasticity Model for Sand under Small and Large Cyclic Strains, 660

Simulation of Structural Concrete under Cyclic Load, 1231

Cyclic strength

Cyclic Stability Criteria for Steel Moment Connections with Reduced Beam Section, 1188

Cyclic tests

Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8

Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086

Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11

Cyclones

Evaluation of Mixed-Population Flood-Frequency Analysis, 778

Cylinders

Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396

Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421

Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293

Time-Dependent Poromechanical Responses of Saturated Cylinders, 325

Cylindrical shells

Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17

Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18

Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305

Dam construction

Understanding Project Site Conditions, 1468

Dam design

Rational Criterion for Designing Opening of Slit-Check Dam, 677

Redesigning the San Roque Dam, 1502

Dam failure

Dam-Break Waves in Power-Law Channel Section, 699

Fragility Analysis of Concrete Gravity Dams, 840

Dam stability

Dam within a Dam, 1555

Dam stability

Damage

Damage

- Application of Dynamic System Identification to Timber Beams. I, 1121
- Application of Dynamic System Identification to Timber Beams. II, 1122
- Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154
- Contour Dust Shield Performance, 34
- Damage of Marble from Cyclic Loading, 1028
- Decomposition of Damage Tensor in Continuum Damage Mechanics, 386
- Effective 3D Constitutive Relations of Composites with Evolving Damage, 353
- Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024
- Mode I Fracture Behavior in Concrete: Nonlocal Damage Modeling, 356
- Multiscale Analysis of Multiple Damage Mechanisms Coupled with Inelastic Behavior of Composite Materials, 351
- Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Probabilistic Models of Damaging Deflections for Floor Elements, 1048
- Simulated Micromechanical Models using Artificial Neural Networks, 362
- Damage accumulation**
 - Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108
 - Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383
- Damage assessment**
 - Bending Fatigue of Cable Stays, 126
 - Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293
 - Damage Diagnosis Using Experimental Ritz Vectors, 416
 - Damage Quantification in Metal Matrix Composites, 311
 - Distress of RC Structure due to Poor Quality Control and Overloading, 1033
 - Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851
 - Prototype Diagnosis Expert System with Knowledge Refinement Function, 185
 - Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191
 - Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030

Damage patterns

- Fracture Properties of High-Strength Concrete, 978
- Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191

Damage prevention

- Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031
- Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Damping

- Behavior of Sloped-Bottom Tuned Liquid Dampers, 308

2001 ASCE TRANSACTIONS

- Control of Seismically Excited Cable-Stayed Bridge Using Resetting Semiactive Stiffness Dampers, 101
- Control of Wind-Excited Truss Tower using Semiactive Friction Damper, 1170
- Damping of Cantilevered Traffic Signal Structures, 1240
- Evaluation Findings for Seismic Energy Products, L.P. Elastomeric Isolation Bearing, 1580
- Evaluation of Viscous Dampers for Stay-Cable Vibration Mitigation, 102
- Experimental Characterization of Viscoelastic Materials as Vibration Dampers, 389
- Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413
- Good Vibrations, 1562
- Toggle-Brace-Damper Seismic Energy Dissipation Systems, 1083
- Vibration and Damping in Three-Bar Tensegrity Structure, 27
- Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390
- Damping ratio**
 - Driveability of FRP Composite Piling, 586
 - Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Dams**
 - Dam within a Dam, 1555
 - Flow over Ogee Spillway: Physical and Numerical Model Case Study, 726
 - Guidelines for Instrumentation and Measurements for Monitoring Dam Performance, 1590
 - The Many Faces of RCC, 1503
 - Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798
- Dams, earth**
 - Response of an Earth Dam to Spatially Varying Earthquake Ground Motion, 385
 - Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Dams, embankment**
 - Assessing Embankment Dam Filters That Do Not Satisfy Design Criteria, 606
 - Prioritization of Ten Embankment Dams According to Physical Deficiencies, 600
 - Risk Indexing Tool to Assist in Prioritizing Improvements to Embankment Dam Inventories, 599
- Dams, gravity**
 - Fragility Analysis of Concrete Gravity Dams, 840
- Dams, rockfill**
 - Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Darcy's law**
 - Interaction of Soil Air Permeability and Soil Vapor Extraction, 434
- Data analysis**
 - Assessment of an L-Kurtosis-Based Criterion for Quantile Estimation, 806
 - A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785

SUBJECT INDEX

Deflection

LTPP Data: Making Something of It: Papers from the International Contest on LTPP Data Analysis 1998-1999, 1595

State-Specific Vehicle Noise Emission Characteristics, 1321

Data collection

Ancient Chinese Timber Architecture. I: Experimental Study, 1226

Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308

Calibration Assessment and Data Collection for Water Distribution Networks, 693

Computer-Generated Building Data: Topological Information, 203

Differential GPS Geometric Rectification of Fine-Resolution Aircraft Scanner Data, 1246

GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831

Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347

Project Management in Construction: Software Use and Research Directions, 222

Data extraction

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

Extracting Hydrologic Information from Spatial Data for HMS Modeling, 833

Data processing

Estimation of Rutting Models by Combining Data from Different Sources, 1303

Granular Dynamics Simulations of Heap Formation: The Effects of Feed Rate on Segregation Patterns in a Binary Granular Heap, 395

Databases

Database for Retaining Wall and Ground Movements due to Deep Excavations, 589

Database-Assisted Design, Standardization, and Wind Direction Effects, 1169

LTPP Data: Making Something of It: Papers from the International Contest on LTPP Data Analysis 1998-1999, 1595

Dead loads

Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212

Debris

1D Numerical Model of Muddy Slurry-Aqueous and Sub-aerial Debris Flows, 758

Debris- and Ice-Skimming Booms at Riverside Diversions, 713

Decay

Application of Dynamic System Identification to Timber Beams. I, 1121

Application of Dynamic System Identification to Timber Beams. II, 1122

Decision making

Approaches for Making Risk-Based GO/NO-GO Decision for International Projects, 246

Case-Based Reasoning Approach in Bid Decision Making, 214

Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430

Optimizing Owner/Contractor Core Competencies for Capital Programs, 950

Risk-Based Decisionmaking in Water Resources IX, 1603

Simulation as a Tool for Resource Management, 226

Use of Belief Function in Brownfield Infrastructure Redevelopment Decision-Making, 1332

Walkthrough Method for Catastrophe Decision Making, 1439

Decision support systems

Decision Support System for Surface Water Planning in River Basins, 1366

Decision Support Tool for Life-Cycle Based Solid Waste Management, 178

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951

Flood-Warning Decision-Support System for Sacramento, California, 1364

Geographic Information Systems, Decision Support Systems, and Urban Storm-Water Management, 1352

GIS-Based Estimation of Slope Stability, 1422

Impact of Rainfall on the Productivity of Highway Construction, 225

MSRP: Model for Station Rehabilitation Planning, 842

Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030

Web-Based Decision Support Systems: Case Study in Project Delivery, 202

Why Industry Needs Asset Management Tools, 177

Decommissioning

Nuclear Shutdown, 1501

Decomposition

Decomposition of Damage Tensor in Continuum Damage Mechanics, 386

Explicit Solution to Green and Ampt Infiltration Equation, 812

Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543

Deep foundations

Piled Raft Foundation Design, 572

SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654

Deep water

Runup on Columns in Steep, Deep Water Regular Waves, 1383

Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420

Deflection

Approximate Analysis Method for Modular Tubular Falsework, 1101

Deflecting Velocity Rod for Flow Measurements in Small Channels, 898

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Inelastic Large Deflection Modeling of Beam-Columns, 1172

Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197

Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082

- Preliminary Analysis of Suspension Bridges, 82
 Probabilistic Models of Damaging Deflections for Floor Elements, 1048

Deformation

- Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381
 Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112
 Estimation of Inelastic Deformation Demands of SDOF Systems, 1186
 Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7
 Experiments and Numerics of Bichromatic Wave Groups, 1419
 Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
 Plastic Hinge Analysis, 1196
 Pullout Tests on Deformed and Plain Rebars in Cement-Stabilized Rammed Earth, 1006
 Stiffness Modeling of Bolted T-Stub Connection Components, 1130
 Time-Dependent Creep Behavior of Particulate Materials, 997

Deformation analysis

- Monitoring Two Tunnels, 1493

Degradation

- Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163
 Acidification of Lactose in Wastewater, 532
 Degradation and Migration of Vinclozolin in Sand and Soil, 549

Degrees of freedom

- Response Spectrum Superposition for Structures with Uncertain Properties, 303
 Seismic Design Method for Thin-Walled Steel Frame Structures, 1087

Delaminating

- Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073
 Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981
 Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanic Approach, 376
 External FRP PostStrengthening of Scaled Concrete Slabs, 150

Delay time

- Construction Delay Computation Method, 217

Delivery

- Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845
 Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953
 Structural Equation Model of Construction Contract Dispute Potential, 12
 Web-Based Decision Support Systems: Case Study in Project Delivery, 202

Deltas

- Development and Geometric Similarity of Alluvial Deltas, 671

Denitrification

- Anoxic Biological Phosphorus Uptake/Release with High/Low Intracellular Polymers, 534
 Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443
 Nitrification/Denitrification in Intermittent Aeration Process for Swine Wastewater Treatment, 516
 Reaction Kinetics of Immobilized-Cell Denitrification. I: Background and Model Development, 513
 Reaction Kinetics of Immobilized-Cell Denitrification. II: Experimental Study, 514
 SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441
 Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470
 Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463

Denmark

- Neural Networks as Routine for Error Updating of Numerical Models, 684

Density

- Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274
 Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538

Density currents

- Characteristics of a Density Current in a Cooling Lake Sidearm, 272
 Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Density measurement

- Status of Roller Mountable Microwave Asphalt Pavement Density Sensor, 215

Deposition

- 3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687

Depth

- Dimensionless Curves for Normal-Depth Calculations in Canal Sections, 907
 Negative Shear Lag Effect in Box Girders with Varying Depth, 1213

Deserts

- Pavement Design in Taklimakan Desert, 1267

Design

- Civil Engineering Practice in the Twenty-First Century: Knowledge and Skills for Design and Management, 1568
 Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876
 Design of Minimum Seepage Loss Canal Sections with Drainage Layer at Shallow Depth, 895
 Formulas for Time of Travel in Channel with Upstream Inflow, 820
 Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355
 New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203
 Pushing Back, 1523
 Quality Function Deployment in Design/Build Projects, 41
 Statewide Vessel Collision Design for Bridges, 80

SUBJECT INDEX

Digestion

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Understanding Concepts of Efficiency and Effectiveness in Architectural Facilities Space Planning and Design, 52

Design criteria

Assessing Embankment Dam Filters That Do Not Satisfy Design Criteria, 606

Effect of Vehicles' Suspension on Highway Horizontal Curve Design, 1264

Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Design data

Improving Design Coordination for Building Projects. I: Information Model, 249

Improving Design Coordination for Building Projects. II: A Collaborative System, 250

Design improvements

The Future of Airports, 1487

Design modifications

Managing Design Changes for Multiview Models, 184

Design standards

Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141

Design Live Loads for Passenger Cars Parking Garages, 1104

Response of Timber Bridge to Traffic Loading, 63

Standard Practice for Direct Design of Buried Precast Concrete Box Sections, 1609

Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610

Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611

Design/build

Cost Analysis between SABER and Design Bid Build Contracting Methods, 253

Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845

Design-Builder Selection for Small Highway Projects, 964

Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects, 211

Relevance of the Network Factor in the Selection of Consultants, 1068

Desorption

Adsorption and Electrothermal Desorption of Hazardous Organic Vapors, 456

Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

Thermally Enhanced Vapor Extraction for Removing PAHs from Lampblack-Contaminated Soil, 554

Detention reservoirs

Hydrologic Design of Urban Flood Control Detention Ponds, 827

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

Deterioration

Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163

Assessment of Existing Structures—Approaches and Research Needs, 1119

Assessment of Infrastructure Inspection Needs Using Logistic Models, 852

Challenging Issues in Modeling Deterioration of Combined Sewers, 844

Fragility Analysis of Concrete Gravity Dams, 840

Developing countries

Quality of Building Construction Materials (Cement) in Developing Countries, 43

Dewatering

Contingent Valuation of Some Externalities from Mine Dewatering, 1375

Effect of Desiccation on Compacted Natural Clays, 577

Role of Air Pressure in Drying of Weakly Permeable Materials, 344

Diaphragm wall

Ground Movements Associated with Wall Construction: Case Histories, 668

Diaphragms

Fatigue Behavior of Welded Diaphragm-to-Beam Connections, 1202

Diatomaceous earth

Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436

Soil-Water Characteristic Curves and Dual Porosity of Sand-Diatomaceous Earth Mixtures, 642

Dielectric constant

Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994

Differential equations

Calculation of Inflow and Outflow in Phreatic Aquifers, 856

Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305

Differential settlement

Bridge Foundations for Hightstown Bypass, 662

Prediction of Ground Movements due to Pile Driving in Clay, 576

Diffraction

Linear Refraction-Diffraction Model for Steep Bathymetry, 1397

Diffusers

Cold-Air Distribution Comparison for Four Supply Air Diffusers, 37

Diffusion

Fractional-Step Method Solution of Diffusive Wave Equation, 772

Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Transition to Self-Similarity of Diffusion of Tracer in Turbulent Patch, 406

Digestion

Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468

Digital systems

Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174

Digital techniques

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831

Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749

Dikes

Wave Runup on Dikes with Shallow Foreshores, 1409

Dilatancy

Drained Cyclic Behavior of Sand with Fabric Dependence, 408

Dilution

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Mixing in Stratified Jets, 685

Performance of Tee Diffusers in Shallow Water with Crossflow, 674

Dimensional analysis

What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337

Disaster relief

Discretion without Accountability: Politics, Flood Damage, and Climate, 1436

"One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431

Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427

When Disasters and Age Collide: Reviewing Vulnerability of the Elderly, 1429

Disasters

Community Emergency Response Training (CERTs): A Recent History and Review, 1426

Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430

Medical and Public Health Consequences of Natural and Biological Disasters, 1435

Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427

September Eleventh, The Days After, The Days Ahead, 1553

Walkthrough Method for Catastrophe Decision Making, 1439

When Disasters and Age Collide: Reviewing Vulnerability of the Elderly, 1429

Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425

Discharge coefficients

Choked Flows through Short Contractions, 728

Numerical Analysis for Lateral Weir Flow, 889

Discharge measurement

Leak Detection in Pipes by Frequency Response Method, 681

Revising the Cuthroat Flume Settlement Rating Adjustment Procedure, 863

Discontinuities

Effective Length Factor for Discontinuous X-Bracing Systems, 290

Discrete elements

Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369

Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399

Fabric Evolution of Ellipsoidal Arrays with Different Particle Shapes, 394

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Material Flow Analyses of Noncircular-Shaped Granular Media using Discrete Element Methods, 397

Micromechanical Analysis of the Shear Behavior of a Granular Material, 396

Modeling Nonspherical Particles Using Multisphere Discrete Elements, 391

Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377

Discrimination

Face Value: The Silent Diversity Challenge, 929

Disinfection

Chlorine Dioxide Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 503

Effect of Temperature on Ozone Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 486

Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533

Dispersion

Effect of Fiber Dispersion on Multiple Cracking of Cement Composites, 314

Higher-Order Homogenization of Initial/Boundary-Value Problem, 420

Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709

New Parameters for Solution of Two-Well Dispersion Problem, 793

Oil Spill Remediation Using Magnetic Separation, 484

Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521

Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775

Displacement

In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299

Prediction of Ground Movements due to Pile Driving in Clay, 576

Seismic Fragility of RC Structural Walls: Displacement Approach, 1097

Seismic Restrainer Design Methods for Simply Supported Bridges, 92

Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631

Stress and Displacement around Elastic Artificial Rectangular Hole, 379

Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152

Dispute resolution

Asphalt Works Subcontracting Disputes in Large Construction Programs, 1038

Making Watershed Partnerships Work: A Review of the Empirical Literature, 1376

A Model for Understanding, Preventing, and Resolving Project Disputes, 237

SUBJECT INDEX

Dissipation

- Piezoelectric Penetration Testing in Atlantic Piedmont Residuum, 575
- Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410

Dissolved organic carbon

- Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Dissolved oxygen

- Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462
- Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584
- Removal of Dissolved Organic Carbon in Sanitary Gravity, 466
- River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528

Dissolved solids

- Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755
- Relative Dissolution Rates of Several Hydrated Limes, 499

Distance measuring

- Improvements to Sight Distance Algorithm, 1289

Distribution patterns

- Analytical Solution for Normal Irrigation Distribution Parameters, 861

Diversion

- Debris- and Ice-Skimming Booms at Riverside Diversions, 713

Diversion structures

- Sediment Diversion through Irrigation Outlets, 859

Documentation

- Geotechnical Testing, Observation, and Documentation, 1585
- Web-Based Construction Document Processing via a Malleable Frame, 191

Domes, structural

- Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323

Domestic wastes

- Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Doppler systems

- Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Drag coefficient

- Predicting Drag Coefficient of Pneumatic Capsule, 1304

Drain tiles

- Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

Drainage

- Analytical Solutions for Shallow Tunnels in Saturated Ground, 424
- Comparison of Models for Computing Drainage Discharge, 904

Driver behavior

- Falling Water Tables in Horizontal/Sloping Aquifer, 906

- Formulas for Time of Travel in Channel with Upstream Inflow, 820

- Habitat Restoration and Agricultural Production under Land Retirement, 888

- Monotonic and Cyclic Liquefaction of Very Loose Sands with High Silt Content, 598

- New Results and Research Needs on Sediment Movement in Urban Drainage, 1357

- Replacement Strategy, 1534

- Surface Drainage for Slope Stabilization, 1615

Drainage basins

- Estimating Equation for Mixed Populations of Floods in Massachusetts, 779

Drainage structures

- Rediscovering the Lost City, 1480

Drainage systems

- DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703
- Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855

Drawdown

- Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

- Confined Aquifer Parameters from Temporal Derivative of Drawdowns, 710

- Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413

Dredge spoil

- Development of a Geomaterial from Dredged Bay Mud, 987

- Dual Benefits, 1542

Dredging

- Aggradation at Bridges, 683

- Dual Benefits, 1542

- Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387

- Megaproject Management, 1559

- New Navigation Channel, 1560

- Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415

Drift

- Proportioning of Earthquake-Resistant RC Building Structures, 1088

- Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420

Drilling

- Applications of Horizontal Characterization Techniques in Trenchless Construction, 268

- Excavation of Surface Installed Pipeline, 849

- Tunnel with Vision, 1492

Driven piles

- Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70

- Reliability of Axially Loaded Driven Pile Groups, 667

Driver behavior

- Impact of Road Conditions on Elderly Drivers, 1284
- Rental Cars Unique Accident Trends, 1275

Stability and Performance of Car-Following Models in Congested Traffic, 1254

Droughts

Climatological Thresholds of Daily Rainfall, 824

Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339

Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Ductility

Effect of Local Details on Ductility of Welded Moment Connections, 1190

Energy-Based Methodology for Ductile Design of Concrete Columns, 1229

Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134

Fracture Analysis of FRP Reinforced Concrete Beams, 349

Local Versus Global Ductility Demands in Simple Bridges, 1136

Rocking Response of Anchored Blocks under Pulse-Type Motions, 334

Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072

Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93

Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

Ducts

Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78

Durability

Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163

Design, Specification, Installation, and Maintenance of Modular Bridge Expansion Joint Systems, 117

Durability Evaluation of Intumescent Coating for Steel Frames, 1004

Durability of Segmental Concrete Bridges, 115

Extended Life Span, 1539

Long-Term Strength and Durability of Soil Cement, 988

Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851

Strength and Durability of Roller-Compacted HVFA Concrete Pavements, 1477

Tests on Bond of Galvanized K-bar and Concrete Cured in Seawater, 1009

Dust

Dust Suppression Using Truck-Mounted Water Spray System, 216

Dyes

Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535

Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521

Dynamic analysis

Dynamic Analysis of Steel Curved Box Girder Bridges, 113

Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405

Seismic Design Method for Thin-Walled Steel Frame Structures, 1087

Dynamic characteristics

Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227

Dynamic loads

Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70

Design Live Loads for Passenger Cars Parking Garages, 1104

Dynamic Load Simulator: Development of a Prototype, 429

Performance of Geosynthetic-Reinforced Asphalt Pavements, 587

Response of Prestressed Concrete I-Girder Bridges to Live Load, 54

Response of Timber Bridge to Traffic Loading, 63

Dynamic models

Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects, 211

Dynamic Simulation of Landfill Waste Stabilization, 566

Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835

Dynamic programming

Design of Sewer Line, 526

Multireservoir Modeling with Dynamic Programming and Neural Networks, 1345

Object-Oriented Model for Repetitive Construction Scheduling, 234

Optimizing Resource Utilization for Repetitive Construction Projects, 212

Water Distribution Network Renewal Planning, 175

Dynamic response

Ambient Vibration of Long-Span Cable-Stayed Bridge, 60

Control of Seismically Excited Cable-Stayed Bridge Using Resetting Semiactive Stiffness Dampers, 101

Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110

Dynamic Tests on Large Cable-Stayed Bridge, 61

Regularization in Moving Force Identification, 294

Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307

Dynamic stability

Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16

Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284

Dynamic structural analysis

Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 1109

Dynamic tests

Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090

Dynamic Tests on Large Cable-Stayed Bridge, 61

Numerical Modeling of a Servohydraulic Testing System for Structures, 372

Earth pressure

Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590

Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046

Passive Earth Pressures: Theories and Tests, 592

SUBJECT INDEX

Eccentric loads

Earth reinforcement

- Going Against the Grain, 1547
- Pullout Tests on Deformed and Plain Rebars in Cement-Stabilized Rammed Earth, 1006

Earthmoving

- Review of Resistive Force Models for Earthmoving Processes, 29

Earthquake damage

- Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8
- Damage Report from Seattle, 1522
- Probabilistic Seismic Demand Model for California Highway Bridges, 109
- Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68
- Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474
- The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

Earthquake engineering

- Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571
- Gujarat (Kutch) India M7.7 earthquake of January 26, 2001 and Napa M5.2 earthquake of Sept. 3, 2000, 1591
- Random Field Representation in a Biorthogonal Wavelet Basis, 300

Earthquake excitation

- Control of Seismically Excited Cable-Stayed Bridge Using Resetting Semiactive Stiffness Dampers, 101
- Gain-Scheduled Adaptive Control for Seismically Excited Hybrid Structures, 1219
- Neural Networks for Multiobjective Adaptive Structural Control, 1095
- Nonstationary Random Critical Excitation for Acceleration Response, 340
- Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191
- Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122

Earthquake loads

- Accidental Torsion in Buildings: Analysis V's Earthquake Motions, 1127
- Energy Dissipation at PR Frames under Seismic Loading, 1140
- Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Seismic Analysis of Segmental Retaining Walls. II: Effects of Facing Details, 637
- Seismic Reliability of Masonry Infilled RC Frames, 1106
- Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 109

Earthquake prediction

- Nonstationary Random Critical Excitation for Acceleration Response, 340
- Safe in the 'Hood: Earthquake Preparedness in Midcity Los Angeles, 1421
- Socioeconomic Reverberations of Earthquake Prediction: Snapshot in Time, Peru 1979-1981, 1433

Earthquake resistant structures

- Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193

- Improving Structural Response to Permanent Ground Displacement, 1467
- Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597
- Proportioning of Earthquake-Resistant RC Building Structures, 1088
- Redesigning the San Roque Dam, 1502
- Toggle-Brace-Damper Seismic Energy Dissipation Systems, 1083

Earthquakes

- 1D Time-Domain Solution for Seismic Ground Motion Prediction, 574
- Apparent Periods of a Building. I: Fourier Analysis, 1132
- Apparent Periods of a Building. II: Time-Frequency Analysis, 1133
- Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193
- Dynamic Load Simulator: Development of a Prototype, 429
- Equivalent Number of Uniform Stress Cycles for Soil Liquefaction Analysis, 663
- Establishment and Maintenance of Taiwan Geodetic Datum 1997, 1251
- Evaluation Findings for Seismic Energy Products, L.P. Elastomeric Isolation Bearing, 1580
- Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7
- Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120
- Gujarat (Kutch) India M7.7 earthquake of January 26, 2001 and Napa M5.2 earthquake of Sept. 3, 2000, 1591
- Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 597
- Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 644
- Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594
- Pseudostatic Approach for Seismic Analysis of Single Piles, 638
- Raising the Bar of BART, 1563
- Response of an Earth Dam to Spatially Varying Earthquake Ground Motion, 385
- Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Seismic Performance of Hillside Fills, 653
- Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238
- Seismic Restraint Design Methods for Simply Supported Bridges, 92
- Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77
- Three-Dimensional Inelastic Response of an RC Building during the Northridge Earthquake, 1128

Eccentric loads

- Behavior of FRP Jacketed Concrete Columns under Eccentric Loading, 159
- Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141

Eccentricity

Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403

Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082

Ecology

Current Philosophy of Sustainability in Civil Engineering, 1051

Economic analysis

Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326

Economic development

Current Philosophy of Sustainability in Civil Engineering, 1051

Economic factors

Contingent Valuation of Some Externalities from Mine Dewatering, 1375

Diversity Is Smart Business for True Success, 936

Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Economic forecasting

Preparing for a Slowdown, 1491

Economic impact

Losses from Weather Extremes in the United States, 1432

Socioeconomic Reverberations of Earthquake Prediction: Snapshot in Time, Peru 1979-1981, 1433

Economic models

Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835

Ecosystems

Habitat Restoration and Agricultural Production under Land Retirement, 888

Landfill Capping with a Woodland Ecosystem, 1459

Simulating Mobile Populations in Aquatic Ecosystems, 1377

Wetlands Engineering & River Restoration, 1621

Eddy viscosity

Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280

Edge effect

Buckling of Skew Plates with Continuity or Rotational Edge Restraint, 28

High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164

Education

Business Strategy: Ideas for Construction Master's Degrees, 920

Development of a Teaching Tool for Building Construction, 38

Environmental Engineering in Mexico, 1056

Finding Your Way through Life, 917

Multiple Claims in Construction Law: Educational Case Study, 1061

Education-practice interchange

Research versus Practice in Transportation Geotechnics: Can We Bridge the Chasm?, 1053

Effective length

Effective Length Factor for Discontinuous X-Bracing Systems, 290

Efficiency

Regional Alfalfa Yield, ET_c , and Water Value in Western States, 874

Understanding Concepts of Efficiency and Effectiveness in Architectural Facilities Space Planning and Design, 52

Effluents

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Mixing in Stratified Jets, 685

Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459

Egypt

Ancient Concept, Modern Context, 1494

Constructability Improvement of Bridges Using Stepping Formwork, 235

Elastic analysis

BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295

Effective Length Factor for Discontinuous X-Bracing Systems, 290

Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7

Elastic deformation

Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16

Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288

Elastic foundations

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Elastic media

Buckling of Cylindrical Tunnel Liners, 317

Elastic properties

Anisotropic Elastic Constants: Measurement by Impact Resonance, 1014

Localization Properties of Generalized Drucker-Prager Elastoplasticity, 348

Random Field Modeling of Elastic Properties Using Homogenization, 281

Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307

Elastic restraints

Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100

Elasticity

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Analytical Solutions for Shallow Tunnels in Saturated Ground, 424

Anisotropic Elastic Constants: Measurement by Impact Resonance, 1014

Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291

Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381

Elastic Buckling of Multilayered Anisotropic Conical Shells, 19

SUBJECT INDEX

Employees

- Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409
- Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423
- Generalized Bending of Shear-Deformable Plate with Elastic Inclusion, 384
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321
- Reinforcement of Elastic Structures in the Presence of Imperfect Interfacial Bonding, 354
- Rocking Response of Anchored Blocks under Pulse-Type Motions, 334
- Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365
- Elastomer**
- Neoprene Bearing Pad Slippage at Louisiana Bridges, 58
- Elastoplasticity**
- Elastoplastic Model for Cemented Soils, 633
- Lagrangian Meshfree Formulation for Analysis of Geotechnical Materials, 330
- Localization Properties of Generalized Drucker-Prager Elastoplasticity, 348
- Electric power plants**
- Use of Landfill Gas for Electricity Generation, 1442
- Electric power transmission**
- Space Solar Power: An Assessment of Challenges and Progress, 21
- Space Solar Power: Environmental Questions and Future Studies, 25
- Technical Assessment of Space Solar Power Research Program, 22
- Electrical equipment**
- Seismic Interaction in Cable-Connected Equipment Items, 407
- Electrical measurement**
- Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973
- Electrical resistivity**
- Determining Irrigation Canal Seepage with Electrical Resistivity, 857
- Electrolysis**
- Use of Electrodeposition for Repair of Concrete with Shrinkage Cracks, 985
- Electronic equipment**
- Analyzing Performance of ETC Plazas Using New Computer Software, 206
- Electroplating**
- Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543
- Elevated structures**
- Modeling Noise at Elevated Highways in Urban Areas: A Practical Application, 1335
- Elevation**
- Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682
- Embankment stability**
- Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610
- Embedment**
- Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144
- Concrete-Steel Composite Coupling Beams. II: Subassembly Testing and Design Verification, 1145
- Emergency services**
- Community Emergency Response Training (CERTs): A Recent History and Review, 1426
- Comparing the Hurricane Disaster Risk of U.S. Coastal Counties, 1434
- Crisis Management in Construction Projects, 1576
- Identifying Hurricane-Induced Hazardous Material Release Scenarios in a Petroleum Refinery, 1440
- Medical and Public Health Consequences of Natural and Biological Disasters, 1435
- "One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431
- Safe in the 'Hood: Earthquake Preparedness in Midcity Los Angeles, 1421
- Use of a Modified Network Model for Analyzing Evacuation Patterns in High-Rise Buildings, 40
- Emission control**
- Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296
- Pilot-Scale Evaluation of H₂O₂ Injection to Control NO_x Emissions, 471
- Emissions**
- Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494
- Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260
- External Costs of Air Emissions from Transportation, 836
- Gas-Liquid Mass Transfer along Small Sewer Reaches, 482
- Method for Estimating Size-Specific Particulate Emission Inventories, 571
- Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493
- Employee benefits**
- Innovative Benefits in a Small Consulting Firm, 914
- One Company's Approach to the Recruitment and Retention of Engineers, 915
- Employee relations**
- Innovations and Best Practices: Leadership Development and Retention, 912
- Innovative Benefits in a Small Consulting Firm, 914
- Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913
- Using the Power of Diversity to Retain Staff: Developing Tools to Ensure Success, 909
- Employees**
- Evaluation of Drug Testing in the Workplace: Study of the Construction Industry, 263
- Preparing for a Slowdown, 1491
- Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913

Employment

Employment

Retention of Nontraditional Engineering and Construction Professionals, 946

Employment conditions

Effect of Interorganizational Teamwork on Project Outcome, 945

Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913

Emulsions

Effects of Operating Parameters in Tubular Ultrafiltration, 465

Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436

Encasements

Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293

Energy

Building Energy Management as a Continuous Quality Control Process, 49

Energy conservation

Energy Tax and Choice of House Construction Techniques in India, 847

Rational Criterion for Designing Opening of Slit-Check Dam, 677

Energy consumption

Energy Tax and Choice of House Construction Techniques in India, 847

Energy dissipation

Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085

Behavior of Sloped-Bottom Tuned Liquid Dampers, 308

Energy Dissipation at PR Frames under Seismic Loading, 1140

Hydraulic Characteristics of Multistage Orifice Tunnels, 729

Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594

Posttensioned Seismic-Resistant Connections for Steel Frames, 1084

Rule of Equivalent States in Limit-State Analysis of Soils, 578

Seismic Energy Dissipators for RC Panels: Analytical Studies, 374

Toggle-Brace-Damper Seismic Energy Dissipation Systems, 1083

Unsteady Friction in Rough Pipes, 723

Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381

Energy losses

Measurements of Air Leakage through Revolving Doors of Institutional Building, 53

Reflection and Transmission of Waves over Submerged Breakwaters, 289

Energy methods

Global Stability Analysis for Bird-Shaped Girders, 1107

Energy sources

Robotic Assembly of Space Solar Power Facilities, 23

Space Solar Power: An Assessment of Challenges and Progress, 21

2001 ASCE TRANSACTIONS

Technical Assessment of Space Solar Power Research Program, 22

Use of Landfill Gas for Electricity Generation, 1442

Engineering

Collaborative Multidisciplinary Design Optimization, 924

Engineering As Applied Social Science, 1067

Engineering education

Assessment of Communications and Collaborative Learning in Civil Engineering Education, 1064

Civil Engineering Education Issues 2001, 1567

Civil-Engineering Education: Alternative Paths, 769

Flow over a "Killer" Weir Design Project, 766

Hydraulic Design Example—Canal and Pipeline Inlet, 767

Hydraulic Engineering Education: Evolving to Meet Needs, 768

Mentoring, 933

New Engineer Training at Bureau of Reclamation, 762

A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910

Real-World Projects Reinforce Fundamentals in the Classroom, 761

Shoring Up Coastal Engineering, 1496

Soils Magic, 1606

Sustainability and Critical Thinking in Civil Engineering Curriculum, 1058

Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763

Teaching Hydraulic Design Using Equation Solvers, 765

Teaching of Hydraulic Design at University of Newcastle upon Tyne, 764

What Do Students Need in Hydraulic Design Projects?, 760

Engineering firms

Corporate Governance and Role of CEO in Engineering Companies, 943

From Competitors to Partners, 1500

Innovative Benefits in a Small Consulting Firm, 914

Mentors and Role Models: Are They Important?, 934

Preparing for a Slowdown, 1491

Small Firms, Big Dig, 1515

Strategic Management in Design Firms, 1054

Strategic Management in Engineering Organizations, 948

Engineering profession

Diversity by the Numbers, 938

Diversity in Engineering, 931

Engineering Academic Diversity: It's the Nondiverse Who Need to Participate, 939

Engineering, Leadership, and Integral Philosophy, 1052

Finding Your Way through Life, 917

The Inherent Personality of Women as an Asset to the Engineering Workplace, 932

Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering, and Technology, 930

Mentoring, 933

Mentors and Role Models: Are They Important?, 934

SUBJECT INDEX

Mystery of the Missing Women Engineers: A Solution, 1057
A New Day for ASCE, 941
Rebuilding America's Infrastructure, 1540
Retention of Nontraditional Engineering and Construction Professionals, 946
Shoring Up Coastal Engineering, 1496
Structural Engineering for Attaining and Maintaining a Diverse Workforce, 940
Engineering services
Commodities and Value Based Pricing of Engineering Services, 965
Marketing Your Web Site, 1535
Planning for Civil Engineering Applications of Information Technology, 952
Engineers
Becoming an Expert Witness, 1504
Civil Engineers and Future Environmental Policies, 1062
Competitive Forces that Drive Civil Engineer Recruitment and Retention, 923
Current Philosophy of Sustainability in Civil Engineering, 1051
Mystery of the Missing Women Engineers: A Solution, 1057
September Eleventh, The Days After, The Days Ahead, 1553
Work-Time Model for Engineers, 240
Engines
Stochastic Field Models for Aircraft Jet Engine Applications, 32
Entrainment
Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721
Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756
Incipient Motion Criteria for Rigid Sediment Grain on Rigid Surface, 338
Parameter Identifiability for Three Sediment Entrainment Equations, 868
Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301
Environmental compatibility
The Future of Airports, 1487
Tied by Water, 1488
Environmental engineering
Application of TQM to Environmental Construction, 960
Environmental Engineering in Mexico, 1056
Environmental impacts
Are Best-Management-Practice Criteria Really Environmentally Friendly?, 1351
External Costs of Air Emissions from Transportation, 836
Integrated Computational Life-Cycle Assessment of Buildings, 179
Environmental issues
Civil Engineers and Future Environmental Policies, 1062
Environmental Engineering in Mexico, 1056

Error analysis

Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451
Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327
Megaproject Management, 1559
Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415
Space Solar Power: Environmental Questions and Future Studies, 25
Environmental Protection Agency
Determining Urban Storm Water BMP Effectiveness, 1350
Environmental quality
Current Philosophy of Sustainability in Civil Engineering, 1051
Environmental Comfort Criteria: Weighting and Integration, 1044
Expert System for Environmental Quality Evaluation, 1045
Epoxy coatings
Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165
Equations of motion
Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322
Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392
Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284
Equations of state
General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813
Multidimensional Infiltration with Arbitrary Surface Fluxes, 905
Equivalence
Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7
Erosion
Assessing Embankment Dam Filters That Do Not Satisfy Design Criteria, 606
Erosion Function Apparatus for Scour Rate Predictions, 580
Estimating the Depth of Deposition (Erosion) at Slope Transitions on Alluvial Fans, 742
Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581
Parameter Identifiability for Three Sediment Entrainment Equations, 868
Risk of Sediment Erosion and Suspension in Turbulent Flows, 689
Scour of Cohesive Soil by Submerged Circular Turbulent Impinging Jets, 722
Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400
Error analysis
Empirical Method of Error Analysis in Volume Estimation: Monte Carlo Simulation under Kriging and Triangulation, 1247
Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792

Errors

Adaptive FE Analysis of RC Shells. I: Theory, 418

Estimation

Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308

Assessment of an L-Kurtosis-Based Criterion for Quantile Estimation, 806

Climate-Biased Storm-Frequency Estimation, 805

Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720

Estimating Labor Production Rates for Industrial Construction Activities, 271

Estimating the Depth of Deposition (Erosion) at Slope Transitions on Alluvial Fans, 742

Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403

Estimation of Inelastic Deformation Demands of SDOF Systems, 1186

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296

Estimation of Rutting Models by Combining Data from Different Sources, 1303

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248

Method for Estimating Size-Specific Particulate Emission Inventories, 571

Multiquadric Equations and Optimal Areal Rainfall Estimation, 830

Uncertainty Assessment of Regionalized Flood Frequency Estimates, 825

Estuaries

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

Ethics

Engineering As Applied Social Science, 1067

Engineering Your Future, 1579

Europe

Performance of Segmental and Posttensioned Bridges in Europe, 118

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Evacuation

Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430

"One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431

Use of a Modified Network Model for Analyzing Evacuation Patterns in High-Rise Buildings, 40

Evaluation

Current and Future Pavement Maintenance Prioritization Based on Rapid Visual Condition Evaluation, 1268

Durability Evaluation of Intumescent Coating for Steel Frames, 1004

Environmental Comfort Criteria: Weighting and Integration, 1044

Establishing Practical Approach for Design Consistency Evaluation, 1291

Evaluating Reliability of TRANSYT-7F Optimization Schemes, 1295

Evaluation Findings for Seismic Energy Products, L.P. Elastomeric Isolation Bearing, 1580

Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804

Evaluation of Handling Systems for Container Terminals, 1398

Evaluation of SSET: The Sewer Scanner & Evaluation Technology, 1581

Evaluation of the Trevipark Automated Parking System, 1582

Evaluation of Viscous Dampers for Stay-Cable Vibration Mitigation, 102

Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005

Expert System for Environmental Quality Evaluation, 1045

Land Cover Change and Its Impact on Soil-Moisture-Field Evolution, 823

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 597

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 644

Model for Evaluating Bridge Construction Plans, 258

Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498

Phase II Evaluation Findings: The Segmental Concrete Channel Bridge System, 1599

SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654

Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474

Summary of Evaluation Findings for 30-Meter Handheld and Mobile Pavement Marking Retroreflectometers, 1614

Evaporation

Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Model for Estimating Evaporation and Transpiration from Row Crops, 901

Modeled Areal Evaporation Trends over the Conterminous United States, 882

Evapotranspiration

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Evapotranspiration Intensifies over the Conterminous United States, 1373

Model for Estimating Evaporation and Transpiration from Row Crops, 901

SUBJECT INDEX

Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873

Regional Alfalfa Yield, *ET_c*, and Water Value in Western States, 874

Evolutionary computation

Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183

Evolutionary Programming for Inverse Problems in Civil Engineering, 189

Genetic Algorithm Approach for Transit Route Planning and Design, 1278

Waste-Load Allocation Using Genetic Algorithms, 1348

Excavation

Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590

Database for Retaining Wall and Ground Movements due to Deep Excavations, 589

Evaluating and Managing Construction Blasting Risk, 1465

Excavation of Surface Installed Pipeline, 849

Review of Resistive Force Models for Earthmoving Processes, 29

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Excitation

Extreme Value of Response to Nonstationary Excitation, 319

Inelastic Response Spectra Using Conventional and Pulse R-Factors, 1187

Expansion

Speeding Across Spain, 1518

Expansion joints

Design, Specification, Installation, and Maintenance of Modular Bridge Expansion Joint Systems, 117

Stress Spikes in Pin and Hanger System of a Truss Bridge, 67

Expansive soils

Expansive Clay Soils and Vegetative Influence on Shallow Foundations, 1583

Use of Class C Fly Ashes for the Stabilization of an Expansive Soil, 622

Experience

Human Effects in Construction Contract Price Forecasting: Experience and Experiential Learning Styles, 269

Experimental data

Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

Experimentation

Ancient Chinese Timber Architecture. I: Experimental Study, 1226

Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421

Dynamic Experiments and Analyses of a Pile-Group-Supported Structure, 624

Effects of Biomass Growth on Gas Pressure Drop in Biofilters, 477

Facility expansion

Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135

Experimental Methods for Estimating In Situ Tensile Force in Tie Rods, 426

Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745

Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413

Experiments and Numerics of Bichromatic Wave Groups, 1419

Experiments on Flow at a 90° Open-Channel Junction, 700

Field Experiments to Determine Gas Transfer at Gated Sills, 747

Flow over a "Killer" Weir Design Project, 766

Orienting Fibers by Extrusion in Reinforced Reactive Powder Concrete, 345

Reaction Kinetics of Immobilized-Cell Denitrification. II: Experimental Study, 514

Soils Magic, 1606

Expert systems

Developing a Draft Schedule Using Templates and Rules, 257

Expert System for Environmental Quality Evaluation, 1045

Prototype Diagnosis Expert System with Knowledge Refinement Function, 185

Expert witness

Becoming an Expert Witness, 1504

Explosives

Evaluating and Managing Construction Blasting Risk, 1465

Extraction procedures

Chromium (III) Isolation from Acid Extract of Tannery Sludge, 1460

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Fabrication

Sensitivity Analysis of Neural Networks in Spool Fabrication Productivity Studies, 208

Fabrics

Drained Cyclic Behavior of Sand with Fabric Dependence, 408

Fabric Evolution of Ellipsoidal Arrays with Different Particle Shape, 394

Quantify Doublet Vector Distribution of Granular Materials, 360

Facilities

A Contribution to the Development of Guidelines for Toll Plaza Design, 1280

Delicate Procedure, 1507

Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430

Robotic Assembly of Space Solar Power Facilities, 23

Understanding Concepts of Efficiency and Effectiveness in Architectural Facilities Space Planning and Design, 52

Facility expansion

New Navigation Channel, 1560

Facility expansion

Twenty-First Century Terminal, 1558

Factor analysis

Effects of Surface Characteristics of Activated Carbons on VOC Adsorption, 437

Faculty

Initiative to Strengthen Publications by Young Faculty, 1060

Mentoring, 933

Seven Keys to a Successful ASCE Student Chapter or Club: Guide for Student Leaders and Faculty Advisors, 1055

Failure investigations

Another Look at Hartford Civic Center Coliseum Collapse, 1034

Failure load

Full-Scale Field Failure Tests of Railway Bridge, 98

New Failure Load Criterion for Large Diameter Bored Piles in Weathered Geomaterials, 615

Failure modes

Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070

Localization Properties of Generalized Drucker-Prager Elastoplasticity, 348

Neoprene Bearing Pad Slippage at Louisiana Bridges, 58

Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

Failure surface

Masonry Failure Criterion under Biaxial Stress State, 974

Failures

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Buckling of Cylindrical Tunnel Liners, 317

Case Study: Lapino Powerplant Penstock Failure, 717

Contemporary and Traditional Wall-System Failures, 1035

Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981

External FRP PostStrengthening of Scaled Concrete Slabs, 150

Failure Criterion for RC Members under Biaxial Bending and Axial Load, 1177

Failure Study of an Aluminum Bridge Deck Panel, 1039

Influence of Porosity on Piping Models of Levee Failure, 669

Modeling of Finger-Joint Failure in Glued-Laminated Timber Beams, 1176

Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406

Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236

Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238

Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365

Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163

Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425

2001 ASCE TRANSACTIONS

Falling bodies

Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043

Falsework

Approximate Analysis Method for Modular Tubular Falsework, 1101

Full-Scale Load Test of a Sand-Jack, 1473

Fast track construction

Dynamic Planning for Fast-Tracking Building Construction Projects, 264

Fasteners

Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120

Fatigue

Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56

Bending Fatigue of Cable Stays, 126

CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168

Damage of Marble from Cyclic Loading, 1028

Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302

Energy-Based Methodology for Ductile Design of Concrete Columns, 1229

Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170

Fatigue Behavior of Welded Diaphragm-to-Beam Connections, 1202

Fatigue Reliability Analysis of Microwave Antenna Towers due to Wind, 1211

Fatigue Reliability Analysis using Nondestructive Inspection, 1181

Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024

Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383

Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31

Numerical Methodology in Fatigue Analysis: Applications, 1260

Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096

Reliability Analysis of Rotorcraft Composite Structures, 33

Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846

Size-Effect on Fatigue in Bending of Concrete, 1026

Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172

Fatigue life

Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286

Numerical Methodology in Fatigue Analysis: Applications, 1260

Fatigue strength

Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984

Federal agencies

High-Tech Inspection, 1544

Recruitment and Retention of Civil Engineers in Departments of Transportation, 911

The Road to Reuse, 1545

SUBJECT INDEX

Federal government

Discretion without Accountability: Politics, Flood Damage, and Climate, 1436

Fenders

Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032

Reliability of Timber Fender Systems in Waterfront Facilities, 1099

Retrofit Analysis of Bridge Fender Systems, 1418

Static Finite-Element Analysis of Bridge Fenders for Barge Impact, 1042

Fertilization

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Fertilizers

Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493

Fiber composites

External FRP PostStrengthening of Scaled Concrete Slabs, 150

Fiber optics

Concrete Fracture Process Zone Characterization with Fiber Optics, 335

Fiber reinforced materials

Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163

Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265

Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162

Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169

Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161

Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623

Behavior of FRP Jacketed Concrete Columns under Eccentric Loading, 159

Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154

CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168

Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208

Composites Enhance Timber Bridges, 153⁹

Composites in Construction: A Reality, 1573

Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293

Drivability of Glass FRP Composite Piling, 149

Driveability of FRP Composite Piling, 586

Effect of Fiber Dispersion on Multiple Cracking of Cement Composites, 314

Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593

Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005

Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170

Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309

Flexural Behavior of Circular Concrete Filled FRP Shells, 1165

Fiber reinforced plastics

Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162

High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164

Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282

Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157

Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182

Orienting Fibers by Extrusion in Reinforced Reactive Powder Concrete, 345

Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166

Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading, 160

Response of RC T-Beams Strengthened for Flexure with Staggered CFRP Plates, 164

Shear Strength of Normal Strength Concrete Beams Reinforced with Deformed GFRP Bars, 173

Significance of Midspan Debonding Failure in FRP-Plated Concrete Beams, 1163

Slenderness Limit for Hybrid FRP-Concrete Columns, 146

Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172

Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072

Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

Strength and Serviceability of FRP Grid Reinforced Bridge Decks, 124

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

Tensile Behavior of FRP Tendons for Prestressed Ground Anchors, 152

Three-Dimensional Micromechanics-Based Constitutive Framework for Analysis of Pultruded Composite Structures, 361

Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412

Triaxial Tests of Fiber-Reinforced Concrete, 1012

Ultimate Response of RC Beams Strengthened with CFRP Plates, 156

Fiber reinforced plastics

Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144

Concrete Beams Strengthened with Externally Bonded FRP Plates, 148

Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376

Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153

External FRP PostStrengthening of Scaled Concrete Slabs, 150

Flexural Performance of Concrete Beams Reinforced with FRP Grids, 145

Fracture Analysis of FRP Reinforced Concrete Beams, 349

- Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100
- Materials Considerations in FRP Rehabilitation of Concrete Structures, 979
- Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
- On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315
- Plastic Frame Analysis under Fire Conditions, 1105
- Repair of Corrosion-Damaged Columns with FRP Wraps, 143
- Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331
- Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Shear Strengthening of Reinforced Concrete Beams with FRP Rods, 155
- Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167

Fibers

- Competitive Adsorption of Phenolic Compounds onto Activated Carbon Fibers in Fixed Bed, 519
- Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110
- Measuring and Modifying Interface Properties of PVA Fibers in ECC Matrix, 1019

Field investigations

- Field Study, Design, and Catalyst Cost of Selective Catalytic Reduction Process, 520

Field tests

- Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265
- Development of a Geomaterial from Dredged Bay Mud, 987
- Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588
- Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Filament wound materials

- Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17
- Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18

Filter materials

- Time-Dependent Particle Transport through Granular Filters, 618

Filters

- Assessing Embankment Dam Filters That Do Not Satisfy Design Criteria, 606
- Effects of Biomass Growth on Gas Pressure Drop in Biofilters, 477
- Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552
- Time-Dependent Particle Transport through Granular Filters, 618

Filtration

- Assessment of Fate of Manganese in Oxide-Coated Filtration Systems, 570

- Effects of Operating Parameters in Tubular Ultrafiltration, 465
- Evaluation of Drinking Water Biostability Using Biofilm Methods, 479
- Mathematical Model of Biofiltration of VOCs: Effect of Nitrate Concentration and Backwashing, 510
- Operation of Full-Scale Oily Wastewater Treatment System, 1451
- Optimization of Hollow-Fiber Design and Low-Pressure Membrane System Operation, 489
- Prediction and Measurement of Bubble Formation in Water Treatment, 551
- Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538
- Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539
- Surface Drainage for Slope Stabilization, 1615
- Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480
- Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533

Financial factors

- Making the Most of HPC, 1489
- Preparing for a Slowdown, 1491

Financial management

- Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951
- Web-Centric Framework for Secure and Legally Binding Electronic Transactions in Large-Scale A/E/C Projects, 201

Financing

- BOT Financial Model: Taiwan High Speed Rail Case, 236
- BOT-Based Approaches to Infrastructure Development in China, 837
- Cost-Effective Landfill Closure: Boston's "Menino Project", 1444
- Financing Infrastructure over Time, 1333
- High-Performance Highway, 1483

Fine-grained soils

- Erosion Function Apparatus for Scour Rate Predictions, 580
- Going Against the Grain, 1547
- Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496

Fineness

- Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971

Finite difference method

- Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286

Finite differences

- Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396
- Influence of Nonassociativity on the Bearing Capacity of a Strip Footing, 661

Finite element method

- 3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401

SUBJECT INDEX

Finite element method

- Ambient Vibration of Long-Span Cable-Stayed Bridge, 60
- Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- Analytical Modeling and Seismic Design of Steel Moment Connections with Welded Straight Haunch, 1189
- Application of Dynamic System Identification to Timber Beams. I, 1121
- Application of Dynamic System Identification to Timber Beams. II, 1122
- Application of Periodic Boundary for Large Pile Group, 651
- Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88
- Behavior and Modeling of Nonprismatic Members Having T-Sections, 1179
- Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085
- Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343
- Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399
- Concrete Beams Strengthened with Externally Bonded FRP Plates, 148
- Constitutive Behavior of Geosynthetic Interfaces, 645
- Design of Composite Surrogate Mirror Support Structure, 30
- Diagnostic Load Testing of Two-Way PostTensioned Concrete Slab, 1470
- Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403
- Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070
- Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112
- Drainage Reduction under Land Retirement over a Shallow Water Table, 854
- Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090
- Effect of Local Details on Ductility of Welded Moment Connections, 1190
- Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967
- Efficient, Robust Design Tool for Open-Channel Flow, 675
- Evolutionary Programming for Inverse Problems in Civil Engineering, 189
- Finite-Element Model Updating for the Kap Shui Mun Cable-Stayed Bridge, 90
- Finite-Element Modeling of Beams under Concentrated Loading, 1092
- Finite-Element Modeling of Filling Pressures in a Full-Scale Silo, 402
- Fire Resistance of Steel Frames using Classical and Numerical Methods, 1167
- Fracture Analysis of High Strength Concrete Members, 992
- Framework for Finite-Element-Based Large Increment Method for Nonlinear Structural Problems, 363
- Gain-Scheduled Adaptive Control for Seismically Excited Hybrid Structures, 1219
- Global Stability Analysis for Bird-Shaped Girders, 1107
- Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323
- Implementation of Porous Media Formulation for Geomaterials, 296
- Integrated Physically Based Rainfall-Runoff Model using FEM, 794
- Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896
- Investigation of Design Alternatives for a Piled Raft Case History, 629
- Lagrangian Meshfree Formulation for Analysis of Geotechnical Materials, 330
- Live Load Distribution for Steel Girder Bridges, 111
- Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55
- Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197
- Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610
- Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157
- Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415
- Modeling Three-Dimensional Timber Light-Frame Buildings, 1175
- Moment Resistance of Steel I-Beam to CFT Column Connections, 1204
- Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57
- Monitoring Two Tunnels, 1493
- Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612
- Nonlinear Finite-Element Modeling of Batter Piles under Lateral Load, 626
- Numerical Aspects of FE Simulations of Granular Flow in Silos, 400
- Partitioning of Tall Buildings using Bubble Graph Representation, 193
- Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Post-Finite Element Prediction Strategies for Engineering Structures, 1228
- Progressive Failure of Lined Waste Impoundments, 646
- Random Field Modeling of Elastic Properties Using Homogenization, 281
- Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261
- Reliability Analysis of Rotocut Composite Structures, 33
- Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636
- Seismic Interaction in Cable-Connected Equipment Items, 407
- Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382
- Simulation of Structural Concrete under Cyclic Load, 1231
- Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal Leg Tension, 1143
- Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230
- Stability Analysis of Box-Girder Cable-Stayed Bridges, 62
- Static Finite-Element Analysis of Bridge Fenders for Barge Impact, 1042

Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153

Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288

Testing and Analysis of Steel Pipe Segments, 1306

Thermomechanical Behavior of Thermoviscoelastic Solid during Dynamic Crack Propagation, 355

Three-Dimensional Modeling of Anchorage Zones in Reinforced Concrete, 357

Uncertainty in Mechanics Problems—Interval-Based Approach, 341

Finite elements

Adaptive FE Analysis of RC Shells. I: Theory, 418

Fracture Mechanics of Marble Using a Splitting Tension Test, 1020

Localization Issues in Force-Based Frame Elements, 1216

Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315

Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215

Pseudoforce Method for Nonlinear Analysis and Reanalysis of Structural Systems, 1138

Reliability-Based Assessment of Suspension Bridges: Application to the Innoshima Bridge, 103

Fire exposure

Basis and Application of a Simple Interaction Formula for Steel Columns under Fire Conditions, 1209

Basis and Application of Simple Interaction Formula for Steel Frames under Fire Conditions, 1210

Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081

Fire protection

Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081

Fire resistance

Basis and Application of a Simple Interaction Formula for Steel Columns under Fire Conditions, 1209

Basis and Application of Simple Interaction Formula for Steel Frames under Fire Conditions, 1210

Fire Resistance of Steel Frames using Classical and Numerical Methods, 1167

Strength and Stability of Steel Frames in Fire: Rankine Approach, 1126

Fire safety

Life at the End of the Tunnel, 1512

Fires

Plastic Frame Analysis under Fire Conditions, 1105

Fish

Big Screen Debut, 1551

Fish habitats

New Navigation Channel, 1560

Fish management

Simulating Mobile Populations in Aquatic Ecosystems, 1377

Fish screens

Big Screen Debut, 1551

Hydraulic Performance of Coanda-Effect Screens, 712

Flanges

Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153

Flash floods

Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

Flexibility

Local Versus Global Ductility Demands in Simple Bridges, 1136

Small Business Report: The Home Advantage, 1506

Flexible pavements

Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262

General Approach to Payment Adjustments for Flexible Pavements, 1258

Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286

Flexural strength

Behavior of Composite Concrete Beams with Smooth Interface, 1113

Flexural Behavior of Circular Concrete Filled FRP Shells, 1165

Flexural Performance of Concrete Beams Reinforced with FRP Grids, 145

Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135

Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal Leg Tension, 1143

Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93

Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167

Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077

Flexure

Concrete Beams Strengthened with Externally Bonded FRP Plates, 148

Flexural Behavior of Composite Reinforced Concrete Elements, 1002

Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076

Floating bodies

Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420

Flocculants

Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567

Flocculation

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Review of Two Decades of Experience with TF/SC Process, 476

Floes

Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133

Flood control

Engineered Levee Breaches for Flood Mitigation, 711

Field Applications of a Variable-Parameter Muskingum Method, 796

SUBJECT INDEX

Flow characteristics

Hydrologic Design of Urban Flood Control Detention Ponds, 827

Lessons from Grand Forks: Planning Nonstructural Flood Control Measures, 1438

Lessons from Grand Forks: Planning Structural Flood Control Measures, 1423

Street Surface Storage for Control of Combined Sewer Surcharge, 1353

Urban Drainage Modeling, 1618

Flood damage

Discretion without Accountability: Politics, Flood Damage, and Climate, 1436

No Adverse Impact: New Direction in Floodplain Management Policy, 1437

Flood forecasting

Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

Flood-Warning Decision-Support System for Sacramento, California, 1364

Flood frequency

Estimating Equation for Mixed Populations of Floods in Massachusetts, 779

Evaluation of Mixed-Population Flood-Frequency Analysis, 778

Generalized Flood Skew: Map versus Watershed Skew, 807

Uncertainty Assessment of Regionalized Flood Frequency Estimates, 825

Flood hydrology

Modeling Looped Ratings in Muskingum-Cunge Routing, 787

Flood level

Simple Method for Relating Local Stage and Remote Discharge, 781

Flood peaks

Estimating Equation for Mixed Populations of Floods in Massachusetts, 779

Flood plain insurance

No Adverse Impact: New Direction in Floodplain Management Policy, 1437

Flood plain management

Lessons from Grand Forks: Planning Nonstructural Flood Control Measures, 1438

Lessons from Grand Forks: Planning Structural Flood Control Measures, 1423

No Adverse Impact: New Direction in Floodplain Management Policy, 1437

Flood plains

Review of Automated Floodplain Delineation from Digital Terrain Models, 1378

Two-Dimensional Flood Plain Flow. I: Model Description, 818

Two-Dimensional Flood Plain Flow. II: Model Validation, 819

Flood routing

Channel Routing in Open-Channel Flows with Surges, 679

Field Applications of a Variable-Parameter Muskingum Method, 796

Fractional-Step Method Solution of Diffusive Wave Equation, 772

Modeling Looped Ratings in Muskingum-Cunge Routing, 787

Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783

Flood stages

Engineered Levee Breaches for Flood Mitigation, 711

Floods

Climatological Thresholds of Daily Rainfall, 824

Engineered Levee Breaches for Flood Mitigation, 711

Evaluation of Numerical Models of Flood and Tide Propagation in Channels, 744

Floodwaves

Modeling Looped Ratings in Muskingum-Cunge Routing, 787

Floors

Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031

Inelastic Analysis of Steel Frames with Composite Beams, 1094

Probabilistic Models of Damaging Deflections for Floor Elements, 1048

State of Practice of Residential Floor Slab Flatness, 1647

Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037

Florida

Analyzing Performance of ETC Plazas Using New Computer Software, 206

Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735

Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Exploring All Options, 1533

Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355

A Natural Approach, 1526

New MOC Model of Seawater Transport in Coastal Aquifers, 817

Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399

Statewide Vessel Collision Design for Bridges, 80

Success Stories of Brevard County, Florida Stormwater Utility, 1356

Water Budget and Vertical Conductance for Magnolia Lake, 797

Flow characteristics

Efficient, Robust Design Tool for Open-Channel Flow, 675

Experiments on Flow at a 90° Open-Channel Junction, 700

Numerical Analysis for Lateral Weir Flow, 889

Role of Bed Discordance at Asymmetrical River Confluences, 701

Flow control

Flow control

Robust Flow Control of Single Input Multiple Outputs Regulated Rivers, 894

Flow distribution

Power Distribution for Low Streamflows, 822

Flow duration curves

Regional Flow Duration Models for Large Number of Ungauged Himalayan Catchments for Planning Microhydro Projects, 809

Flow measurement

Deflecting Velocity Rod for Flow Measurements in Small Channels, 898

Flow over Ogee Spillway: Physical and Numerical Model Case Study, 726

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

Measurements of Turbulence Generated by Oscillating Grid, 686

Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691

Revising the Cutthroat Flume Settlement Rating Adjustment Procedure, 863

Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Unifying Asphalt Rheological Data Using the Material's Volumetric-Flow Rate, 1003

Wavelet Transform Analysis of Open Channel Wake Flows, 285

Flow patterns

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450

Flow rates

Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855

Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811

Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858

Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581

Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Unifying Asphalt Rheological Data Using the Material's Volumetric-Flow Rate, 1003

Flow resistance

Functional Relationship to Describe Drains with Entrance Resistance, 903

Flow simulation

Impact of Turbidity Currents on Reservoir Sedimentation, 670

Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708

Flue gases

Pilot-Scale Evaluation of H_2O_2 Injection to Control NO_x Emissions, 471

2001 ASCE TRANSACTIONS

Fluid dynamics

Behavior of Sloped-Bottom Tuned Liquid Dampers, 308

Efficient, Robust Design Tool for Open-Channel Flow, 675

Fluid flow

Numerical Analysis for Lateral Weir Flow, 889

Fluid infiltration

Experimental Validation and Applications of a Fluid Infiltration Model, 449

Fluid mechanics

Behavior of the Working Fluid in Mechanized Support in Permafrost, 138

Fluidized beds

Solid Circulation Rate in Recirculating Fluidized Bed, 275

Fluid-structure interaction

Wind Pressures on End-Cell-Induced Vibration of Circular Tower, 411

Flumes

Development and Geometric Similarity of Alluvial Deltas, 671

Flume Tests for Scour in Clay at Circular Piers, 759

Laboratory Study of Anchor Ice Growth, 131

Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749

Revising the Cutthroat Flume Settlement Rating Adjustment Procedure, 863

Fluorides

Precipitative Removal of Fluoride from Electronics Wastewater, 542

Flutter

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Improving the Wind Stability of Suspension Bridges during Construction, 1171

Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Suspension Bridge Flutter for Girders with Separated Control Flaps, 74

Fluvial hydraulics

Sediment Pickup on Streamwise Sloping Beds, 860

Fly ash

Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274

Behavior of Compacted Soil-Fly Ash-Carbitide Lime Mixtures, 640

Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443

Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975

Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

Strength and Durability of Roller-Compacted HVFA Concrete Pavements, 1477

Use of Class C Fly Ashes for the Stabilization of an Expansive Soil, 622

Footings

Influence of Nonassociativity on the Bearing Capacity of a Strip Footing, 661

SUBJECT INDEX

- Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595
- Scale Effect of Strip and Circular Footings Resting on a Dense Sand, 627
- Force**
- Regularization in Moving Force Identification, 294
- Forced vibration**
- Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090
- Forecasting**
- Application of a Neural Network Model to Forecast Short-Term Pavement Crack Condition: Florida Case Study, 853
- Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735
- Multivariate Reservoir Inflow Forecasting Using Temporal Neural Networks, 815
- Neural Networks as Routine for Error Updating of Numerical Models, 684
- Foreign projects**
- Approaches for Making Risk-Based GO/NO GO Decision for International Projects, 246
- BOT-Based Approaches to Infrastructure Development in China, 837
- Exchange Rate Risk Management in International Construction Ventures, 961
- Forensic engineering**
- Bad Engineering Yields Even Worse Lawsuits, 1049
- Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043
- Under the Microscope, 1520
- Foreshore**
- Wave Runup on Dikes with Shallow Foreshores, 1409
- Formwork, construction**
- Constructability Improvement of Bridges Using Stepping Formwork, 235
- Design and Construction of High Multitier Shoring Towers: Case Study, 223
- Foundation construction**
- Design and Construction of Frost-Protected Shallow Foundations, 1577
- Foundation design**
- Design and Construction of Frost-Protected Shallow Foundations, 1577
- Investigation of Design Alternatives for a Piled Raft Case History, 629
- Piled Raft Foundation Design, 572
- Rediscovering the Lost City, 1480
- Foundation investigations**
- Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030
- Foundations**
- Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306
- Bucket Foundation Platforms Installed in Shallow and Ice-Drifting Area, 140
- Foundations and Ground Improvement, 1584
- Pseudostatic Approach for Seismic Analysis of Single Piles, 638

Framed structures

- Simplified Method for Consolidation Rate of Stone Column Reinforced Foundations, 625
- Ultimate Lateral Resistance of Pile Groups in Sand, 614
- Fourier analysis**
- Apparent Periods of a Building. I: Fourier Analysis, 1132
- Modification of Canal Flow due to Stream-Aquifer Interaction, 719
- Fourier series**
- Finite Fourier Probability Distribution and Applications, 826
- Fractals**
- Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775
- Fracture mechanics**
- Concrete Fracture Process Zone Characterization with Fiber Optics, 335
- Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376
- Evaluation of Bond Properties in Concrete Repair Materials, 980
- Fracture Properties of High-Strength Concrete, 978
- Fracture strength**
- Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984
- Fracture Mechanics of Marble Using a Splitting Tension Test, 1020
- Localization Issues in Force-Based Frame Elements, 1216
- Fractures**
- Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821
- Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373
- Avalanche Statistics of Interface Crack Propagation in Fiber Bundle Model: Characterization of Cohesive Crack, 352
- Cracking and Fracture of Suspension Bridge Wire, 127
- Fracture Analysis of FRP Reinforced Concrete Beams, 349
- Fracture Analysis of High Strength Concrete Members, 992
- Mode I Fracture Behavior in Concrete: Nonlocal Damage Modeling, 356
- Modeling of Concrete Cracking Induced by Steel Expansion, 990
- Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096
- Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230
- The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6
- Frame design**
- Inverse Design of Frames for Specified Second-Order Bending Strains, 1139
- Framed structures**
- Modeling Three-Dimensional Timber Light-Frame Buildings, 1175

Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125

Frames

Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214

Behavior and Modeling of Nonprismatic Members Having T-Sections, 1179

Full-Scale Load Test of a Sand-Jack, 1473

In-Plane Analysis of Masonry Infill Materials, 1479

Localization Issues in Force-Based Frame Elements, 1216

Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147

Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148

Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96

Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191

Seismic Reliability of Masonry Infilled RC Frames, 1106

Sensitivity of Optimum Designs for Spatially Varying Ground Motions, 1223

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368

Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221

France

Fast Forward, 1517

Frazil ice

Laboratory Study of Anchor Ice Growth, 131

Freeze-thaw cycle

Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations, 132

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Freezing

Rain-on-Snow Surcharge for Roof Design, 1078

Freight terminals

Effect of Seasonal Factors on Performance of Container Terminals, 1394

Evaluation of Handling Systems for Container Terminals, 1398

Freight transportation

Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205

Frequency

Climate-Biased Storm-Frequency Estimation, 805

Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339

Frequency analysis

Apparent Periods of a Building. II: Time-Frequency Analysis, 1133

Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121

Frequency response

Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313

Leak Detection in Pipes by Frequency Response Method, 681

Friction

Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585

Influence of Supporting Base Characteristics on Shrinkage-Induced Stresses in Concrete Pavements, 1312

Sample Size Determination in Open Channel Inverse Problems, 731

Seismic Energy Dissipators for RC Panels: Analytical Studies, 374

Unsteady Friction in Rough Pipes, 723

Friction coefficient, hydraulic

Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390

Friction factor

Control of Wind-Excited Truss Tower using Semiaactive Friction Damper, 1170

Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263

Frost penetration

Assessing Frost Resistance of Concrete Aggregates in Minnesota, 139

Froude number

Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322

Flume Tests for Scour in Clay at Circular Piers, 759

Hydraulic Performance of Coanda-Effect Screens, 712

Laboratory Study of Anchor Ice Growth, 131

Recalibration of a Reaeration Equation, 469

Frozen soils

Design and Construction of Frost-Protected Shallow Foundations, 1577

Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Fuel consumption

Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274

Fuels

Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436

Full-scale tests

Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086

Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588

Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075

Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13

Funding allocations

Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951

SUBJECT INDEX

Web-Centric Framework for Secure and Legally Binding Electronic Transactions in Large-Scale A/E/C Projects, 201

Furrow irrigation

Analysis and Design of Furrow Irrigation Systems, 878

Optimal Furrow Design. I: Time of Advance Equation, 883

Optimal Furrow Design. II: Explicit Calculation of Design Variables, 884

Fuzzy sets

Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851

Gables

Rain-on-Snow Surcharge for Roof Design, 1078

Gaging stations

Evaluation of Mixed-Population Flood-Frequency Analysis, 778

Gas production

Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447

Use of Landfill Gas for Electricity Generation, 1442

Gasoline

Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274

Experimental Investigations of Oxygenated Gasoline Dissolution, 455

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Gates

Flap Gate Design for Automatic Upstream Canal Water Level Control, 867

Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846

Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783

Gaussian process

Development and Geometric Similarity of Alluvial Deltas, 671

Non-Gaussian Wind Pressure on Prismatic Buildings. I: Stochastic Field, 1183

Non-Gaussian Wind Pressure on Prismatic Buildings. II: Numerical Simulation, 1184

Geocentric datum

Establishment and Maintenance of Taiwan Geodetic Datum 1997, 1251

Geographic information systems

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785

Geographic Information Systems, Decision Support Systems, and Urban Storm-Water Management, 1352

GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831

GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832

GIS-Based Cost Estimates Integrating with Material Layout Planning, 245

GIS-Based Estimation of Slope Stability, 1422

Integrated Hydrologic Modeling and GIS in Water Resources Management, 197

Linear Reference System for Life-Cycle Integration, 182

Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365

Snow Event Effects on Interstate Highway Crashes, 141

Spatial Data, Coordinate Systems, and the Science of Measurement, 1253

User Interface for Ground-Water Modeling: ArcView Extension, 802

Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Geogrids

Bounding Surface Model for Geosynthetic Reinforcements, 390

Geological anomalies

Understanding Project Site Conditions, 1468

Geology

Geotechnical Testing, Observation, and Documentation, 1585

Geomembranes

Interactions between PVC Geomembranes and Compacted Clays, 657

Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620

Geometric nonlinearity

Framework for Finite-Element-Based Large Increment Method for Nonlinear Structural Problems, 363

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368

Geometry

Finite-Element Modeling of Filling Pressures in a Full-Scale Silo, 402

Improvements to Sight Distance Algorithm, 1289

Strategy for Designing Geodetic Network with High Reliability and Geometrical Strength, 1250

Uncertainty in Mechanics Problems—Interval-Based Approach, 341

Geomorphology

River-Ice Flow. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128

Georgia

Tool for Rural and Statewide Multimodal Transportation Planning, 204

Geosynthetics

Bounding Surface Model for Geosynthetic Reinforcements, 390

Constitutive Behavior of Geosynthetic Interfaces, 645

Draining in a New Direction, 1524

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Interaction of Foundry Sands with Geosynthetics, 602

Pavement Design in Taklimakan Desert, 1267

Performance of Geosynthetic-Reinforced Asphalt Pavements, 587

Geosynthetics

Geotechnical engineering

Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571

Geotechnical Testing, Observation, and Documentation, 1585

Germany

Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795

Girders

Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78

Full-Scale Load Test of a Sand-Jack, 1473

Global Stability Analysis for Bird-Shaped Girders, 1107

Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93

Suspension Bridge Flutter for Girders with Separated Control Flaps, 74

Glass

Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298

Chemical Reactions of Glass Cullet Used as Cement Component, 1021

Considerations for Blast-Resistant Glazing Design, 47

Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162

Volumetric Study of Reflected Glare from Glass Curtain Walls of Buildings, 48

Glass fibers

Drivability of Glass FRP Composite Piling, 149

Global positioning

Combined Analysis of Real-Time Kinematic GPS Equipment and its Users for Height Determination, 1245

Differential GPS Geometric Rectification of Fine-Resolution Aircraft Scanner Data, 1246

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Transformation of Ellipsoid Heights to Local Leveling Heights, 1249

Global warming

Modeled Areal Evaporation Trends over the Conterminous United States, 882

Glue laminated materials

Modeling of Finger-Joint Failure in Glued-Laminated Timber Beams, 1176

Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Gold

Contingent Valuation of Some Externalities from Mine Dewatering, 1375

Government

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

Procurement Protocols for Public-Private Partnered Projects, 252

Government agencies

The Future of Airports, 1487

Strategic Management in Engineering Organizations, 948

Government policies

When Disasters and Age Collide: Reviewing Vulnerability of the Elderly, 1429

Gradually varied flow

Integrating Equation of Gradually Varied Flow, 725

Graduate study

Business Strategy: Ideas for Construction Master's Degrees, 920

A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910

Teaching Hydraulic Design Using Equation Solvers, 765

Grain size

Rational Criterion for Designing Opening of Slit-Check Dam, 677

Grain storage

Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403

Grains, crops

Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892

Granular materials

Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399

Going Against the Grain, 1547

Micromechanic Formulation of Macroscopic Structures in a Granular Medium, 393

Micromechanical Analysis of the Shear Behavior of a Granular Material, 396

Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Numerical Aspects of FE Simulations of Granular Flow in Silos, 400

Quantify Doublet Vector Distribution of Granular Materials, 360

Quantifying Void Ratio in Granular Materials using Voronoi Tessellation, 199

Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Stochastic Model for Time-Dependent Compression of Particulate Media, 339

Time-Dependent Particle Transport through Granular Filters, 618

Granular media

Granular Dynamics Simulations of Heap Formation: The Effects of Feed Rate on Segregation Patterns in a Binary Granular Heap, 395

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Material Flow Analyses of Noncircular-Shaped Granular Media using Discrete Element Methods, 397

Graph theory

2D Unit Sediment Graph Theory, 789

Combinatorial Representations in Structural Analysis, 195

SUBJECT INDEX

Partitioning of Tall Buildings using Bubble Graph Representation, 193

Graphic analysis

Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Graphic methods

Managing Design Changes for Multiview Models, 184

Grasses

Carbon Addition Reduced Lag Time for 2,4,6-Trichlorophenol Degradation, 524

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Grass-Lined Channels, 690

Reduced-Runoff Irrigation of Sudan Grass Hay, Imperial Valley, California, 899

Gravity

Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692

Gravity

Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($\rho_s > 1.0$) Oxide-Coated Fixed Media, 539

Gravity loads

Inelastic Analysis of Steel Frames with Composite Beams, 1094

Great Lakes

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Interior-Point Method for Reservoir Operation with Stochastic Inflows, 1341

Green-Ampt model

Experimental Validation and Applications of a Fluid Infiltration Model, 449

Greens function

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Green's Function of Thermoelastic Mixed Boundary Value Problem for an Elliptic Hole, 370

Grid systems

Damage Diagnosis Using Experimental Ritz Vectors, 416

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

Flexural Performance of Concrete Beams Reinforced with FRP Grids, 145

Grillages

Nonlinear Flexural Behavior of Prestressed Concrete Girder Bridges, 89

Ground motion

1D Time-Domain Solution for Seismic Ground Motion Prediction, 574

Database for Retaining Wall and Ground Movements due to Deep Excavations, 589

Equivalent Number of Uniform Stress Cycles for Soil Liquefaction Analysis, 663

Ground Movements Associated with Wall Construction: Case Histories, 668

Near-Fault Ground Motion Effects on Simple Structures, 1185

Ground-water pollution

Prediction of Ground Movements due to Pile Driving in Clay, 576

Response of an Earth Dam to Spatially Varying Earthquake Ground Motion, 385

Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333

Seismic Performance of RC Bridge Column under Repeated Ground Motions, 108

Sensitivity of Optimum Designs for Spatially Varying Ground Motions, 1223

Ground water

Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

Coming to the Surface, 1549

Cr(VI) Adsorption onto Hydrous Concrete Particles from Groundwater, 569

Identification of Contaminant Source Location and Release History in Aquifers, 799

An Improved Real-Coded GA for Groundwater Bioremediation, 198

Integrated Surface and Ground Water Management, 1593

Model-Predicted Groundwater Circulation Well Performance, 1462

Surface Drainage for Slope Stabilization, 1615

Use of GA to Determine Areas of Accretion to Semi-confined Aquifer, 737

User Interface for Ground-Water Modeling: ArcView Extension, 802

Ground-water flow

Determination of Component of Ground-Water Flow from Rainfall Data, 801

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Ground-water management

Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

Ground-water mounding

Design of Circular Infiltration Basin under Mounding Effects, 1342

Ground-water pollution

Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568

Engineering Approach for Tier 2 RBCA Evaluations at NAPL-Contaminated Sites, 1370

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Groundwater Contamination by Organic Pollutants, 1587

Measuring Phytoremediation Parameters for Volatile Organic Compounds: Focus on MTBE, 1453

Model-Predicted Groundwater Circulation Well Performance, 1462

New Parameters for Solution of Two-Well Dispersion Problem, 793

A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349

Optimal Identification of Ground-Water Pollution Sources and Parameter Estimation, 1338

Plant Uptake of Methyl tert-Butyl Ether (MTBE) from Ground Water, 1455

Ground-water pollution

- Plant-Enhanced Remediation of Glycol-Based Aircraft Deicing Fluids, 1456
- Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433

Ground-water quality

- Groundwater and Soil Remediation: Process Design and Cost Estimating of Proven Technologies, 1586
- Groundwater Contamination by Organic Pollutants, 1587
- Modeling Natural Attenuation of Fuels with BIOPLUME III, 14
- River Basin Network Model for Integrated Water Quantity/Quality Management, 1414

Ground-water recharge

- Identifying Effective Distance to a Recharge Boundary, 732
- Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896
- Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450
- Standard Guidelines for Artificial Recharge of Ground Water, 1608

Grout

- Effect of Grouting Pressure in Posttensioned Bulbtec Girders, 78

Grouting

- Model of Compaction Grouting, 658

Guidelines

- A Contribution to the Development of Guidelines for Toll Plaza Design, 1280
- Debris- and Ice-Skimming Booms at Riverside Diversions, 713
- Guide to the Use of Wind Load Provisions of ASCE 7-98, 1589
- Residential Land Development Practices: A Textbook on Development Land Into Finished Lots, 1602
- State-of-the-Art in Design of Curved Box-Girder Bridges, 73

Guideways

- BART SFO Extension Aerial Guideways: Using Non-linear Analysis to Control and Minimize Seismic Damage, 100

Gulf of Mexico

- Coming to the S.-face, 1549
- Dual Benefits, 1542

Gusts

- Gust Loading Factor: New Model, 1091

Gypsum

- Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Enhancing Water Resistance of Cement and Gypsum-Cement Materials, 1013
- Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471
- Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975

Half space

- Buckling of Column with Base Attached to Elastic Half-Space, 304

2001 ASCE TRANSACTIONS

Hangers

- Stress Spikes in Pin and Hanger System of a Truss Bridge, 67

Harbors

- Ports '01, 1601

Hawaii

- Stabilizing a Crater Rim, 1546

Hazardous materials

- Identifying Hurricane-Induced Hazardous Material Release Scenarios in a Petroleum Refinery, 1440

Hazardous waste

- Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Hazards

- Estimation of Volcanic Hazards from Tephra Fallout, 1424

Head loss

- Prediction and Measurement of Bubble Formation in Water Treatment, 551

Health hazards

- Exposure to Pesticides by Medium and Route: The 90th Percentile and Related Uncertainties, 537
- Predicting the Formation of Chlorinated and Brominated By-Products, 490

Heat balance

- Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440

Heat loss

- Characteristics of a Density Current in a Cooling Lake Sidearm, 272
- Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440

Heat transfer

- Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081

Heat treatment

- Engineered Heat-Straightening Repairs: A Case Study, 66
- Repair of Localized Damage in Steel by Heat Straightening, 1199
- Residual Stresses in Heat-Straightened Steel Members, 969

Heating

- Heat Pipe Augmented Passive Solar System for Heating of Buildings, 273

Heavy metals

- Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438
- Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454
- Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481
- Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496
- Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555
- Recovery and Marine Clay Stabilization of Heavy Metals Present in Spent Hydrotreating Catalysts, 544

SUBJECT INDEX

Holes

- Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538
- Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539
- Uptake, Selectivity, and Inhibition of Hydroponic Treatment of Contaminants, 491
- Height**
- Combined Analysis of Real-Time Kinematic GPS Equipment and its Users for Height Determination, 1245
- Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471
- Transformation of Ellipsoid Heights to Local Leveling Heights, 1249
- High occupancy vehicles**
- Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318
- High strength concretes**
- Bridge to the Future, 1554
- Complete Triaxial Stress-Strain Curves of High-Strength Concrete, 995
- Fracture Analysis of High Strength Concrete Members, 992
- Fracture Properties of High-Strength Concrete, 978
- High-Temperature Compressive Strength of Steel Fiber High-Strength Concrete, 998
- Making the Most of HPC, 1489
- Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072
- Useful and Practical Hints on the Process of Producing High-Strength Concrete, 1476
- High strength steel**
- Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123
- High technology**
- High-Tech Inspection, 1544
- Highway construction**
- Design-Builder Selection for Small Highway Projects, 964
- Impact of Rainfall on the Productivity of Highway Construction, 225
- Optimum Planning of Highway Construction under A + B Bidding Method, 242
- Parkway Payoff, 1564
- Quality of Pavement Construction in Saudi Arabia, 1475
- Highway design**
- Capacity of Shared Left Turn Lanes—A Comparative Analysis, 1270
- Effect of Vehicles' Suspension on Highway Horizontal Curve Design, 1264
- Establishing Practical Approach for Design Consistency Evaluation, 1291
- Evaluation of Roundabout Performance Using SIDRA, 1271
- Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293
- Out of the Way, 1498
- Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256
- Highway improvements**
- Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292
- Highway maintenance**
- Current and Future Pavement Maintenance Prioritization Based on Rapid Visual Condition Evaluation, 1268
- Linear Reference System for Life-Cycle Integration, 182
- Optimal Work Zone Lengths for Four-Lane Highways, 1269
- Highway planning**
- Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281
- Highway safety**
- Evaluating Safety of Urban Arterial Roadways, 1272
- Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320
- Highway transportation**
- Intermodal Innovation, 1505
- Highways**
- Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308
- Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329
- Empirical Freeway Queuing Duration Model, 1255
- High-Performance Highway, 1483
- Infiltration Pond Design for Highway Runoff Treatment in Semiarid Climates, 557
- Modeling Noise at Elevated Highways in Urban Areas: A Practical Application, 1335
- Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281
- The Road to Reuse, 1545
- Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041
- State-Specific Vehicle Noise Emission Characteristics, 1321
- Statistical and Genetic Algorithms Classification of Highways, 1283
- Hiring practices**
- One Company's Approach to the Recruitment and Retention of Engineers, 915
- Recruitment and Retention of Civil Engineers in Departments of Transportation, 911
- Historic sites**
- Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227
- Machu Picchu: A Civil Engineering Marvel, 1596
- History**
- 150 Years of Civil Engineering in the United States of America, 1063
- In the Wake of Tocoma: Suspension Bridges and the Quest for Aerodynamic Stability, 1592
- International Engineering History and Heritage: Improving Bridges to ASCE's 150th Anniversary, 1594
- Lessons from Roman Cement and Concrete, 1059
- Holes**
- Green's Function of Thermoelastic Mixed Boundary Value Problem for an Elliptic Hole, 370

Holes

Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120

Stress and Displacement around Elastic Artificial Rectangular Hole, 379

Hollow sections

Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68

Tests of X- and K-Joints in CHS Stainless Steel Tubes, 1206

Torsional Stiffness of Multicell Hollow Sections, 1469

Homogeneity

Assessment of Asphalt Specimen Homogeneity, 1301

Higher-Order Homogenization of Initial/Boundary-Value Problem, 420

Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425

Measurements of Turbulence Generated by Oscillating Grid, 686

Random Field Modeling of Elastic Properties Using Homogenization, 281

Honeycomb structures

In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299

Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412

Hong Kong

Construction Coordination Activities: What is Important and What Consumes Time, 963

Effect of Seasonal Factors on Performance of Container Terminals, 1394

Finite-Element Model Updating for the Kap Shui Mun Cable-Stayed Bridge, 90

Hong Kong Experience in Managing BOT Projects, 229

How Park-and-Ride Schemes Can Be Successful in Eastern Asia, 1328

Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326

Response of Laterally Loaded Large-Diameter Bored Pile Groups, 630

Transporting Hong Kong, 1490

Hoppers

Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403

Horizontal drains

Draining in a New Direction, 1524

Hospitals

Delicate Procedure, 1507

Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430

Hot weather construction

Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023

Housing

Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326

Human factors

Effect of Interorganizational Teamwork on Project Outcome, 945

Engineering, Leadership, and Integral Philosophy, 1052

2001 ASCE TRANSACTIONS

Human Effects in Construction Contract Price Forecasting: Experience and Experiential Learning Styles, 269

Understanding Psychological Type to Improve Project Team Performance, 944

Humidity

Adsorption and Electrothermal Desorption of Hazardous Organic Vapors, 456

Load Dampening System for Vapor Phase Bioreactors, 457

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Hurricanes

Comparing the Hurricane Disaster Risk of U.S. Coastal Counties, 1434

Identifying Hurricane-Induced Hazardous Material Release Scenarios in a Petroleum Refinery, 1440

"One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431

Hydration

Studies on Several Factors Affecting Hydration and Properties of Lime-Pozzolan Cements, 1025

Hydraulic conductivity

Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791

Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872

Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

Effect of Desiccation on Compacted Natural Clays, 577

General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813

Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481

Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Multidimensional Infiltration with Arbitrary Surface Fluxes, 905

Organic clay with Soil-Bentonite Admixture as Waste Containment Barriers, 523

Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798

Simple Method of Modeling PVD-Improved Subsoil, 659

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Volatile Organic Compound (VOC) Transport through Compacted Clay, 582

Hydraulic design

Bibliography for Teaching Hydraulic Design, 770

Debris- and Ice-Skimming Booms at Riverside Diversions, 713

Real-World Projects Reinforce Fundamentals in the Classroom, 761

Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763

SUBJECT INDEX

- Teaching Hydraulic Design Using Equation Solvers, 765
- Teaching of Hydraulic Design at University of Newcastle upon Tyne, 764
- What Do Students Need in Hydraulic Design Projects?, 760
- Hydraulic engineering**
- Civil-Engineering Education: Alternative Paths, 769
- Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571
- Hydraulic Engineering Education: Evolving to Meet Needs, 768
- Machu Picchu: A Civil Engineering Marvel, 1596
- Hydraulic fill**
- Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11
- Hydraulic jets**
- Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702
- Mixing in Stratified Jets, 685
- Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Hydraulic jump**
- Backward Flow Velocities of Submerged Hydraulic Jumps, 715
- Hydraulic loads**
- Time-Dependent Particle Transport through Granular Filters, 618
- Hydraulic models**
- Design of Cazenovia Creek Ice Control Structure, 134
- Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858
- Lessons from Grand Forks: Planning Structural Flood Control Measures, 1423
- Simple Method for Relating Local Stage and Remote Discharge, 781
- Turbine Discharge Measurement by the Velocity-Area Method, 738
- User Interface for Ground-Water Modeling: ArcView Extension, 802
- Hydraulic networks**
- Hydraulic Infrastructures Design Using Simulated Annealing, 839
- Water Distribution Network Renewal Planning, 175
- Hydraulic performance**
- Hydraulic Performance of Coanda-Effect Screens, 712
- Hydraulic pressure**
- Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Hydraulic properties**
- Hydraulic Characteristics of Multistage Orifice Tunnels, 729
- Pool Quality Index: New Method to Define Minimum Flow Requirements of High-Gradient, Low-Order Streams, 556
- Predicting River Travel Time from Hydraulic Characteristics, 753
- Recalibration of a Reaeration Equation, 469
- Hydraulic roughness**
- Grass-Lined Channels, 690
- Hydraulic Roughness of Breakup Ice Jams, 727

Hydrographs

- Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301
- Hydraulic structures**
- Assessing Sensitivity Factors of Irrigation Delivery Structures, 902
- Backward Flow Velocities of Submerged Hydraulic Jumps, 715
- Design of Cazenovia Creek Ice Control Structure, 134
- Design of Minimum Seepage-Loss Nonpolygonal Canal Sections, 871
- Field Experiments to Determine Gas Transfer at Gated Sills, 747
- Lessons from Grand Forks: Planning Structural Flood Control Measures, 1423
- Hydrocarbons**
- Attenuation of Petroleum Hydrocarbons in Smear Zones: A Case Study, 508
- Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591
- Modeling Natural Attenuation of Fuels with BIOPLUME III, 14
- Predictions of Bioremediability and Actual Results: Soils with Petroleum Hydrocarbons, 1449
- Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450
- Hydrodynamic configurations**
- Simple Method for Relating Local Stage and Remote Discharge, 781
- Hydrodynamics**
- Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386
- Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
- Oil Containment by Boom in Waves and Wind. II: Waves, 1405
- Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5
- Hydroelectric powerplants**
- Case Study: Lapino Powerplant Penstock Failure, 717
- Hydroelectric resources**
- Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347
- Hydrogen peroxide**
- Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472
- Pilot-Scale Evaluation of H_2O_2 Injection to Control NO_x Emissions, 471
- Hydrographic surveys**
- Hydrographic Surveying from Personal Watercraft, 1243
- Hydrographs**
- Modeling Looped Ratings in Muskingum-Cunge Routing, 787
- Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581
- Rational Hydrograph Method for Small Urban Watersheds, 814
- Simple Method for Relating Local Stage and Remote Discharge, 781

Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783

Hydrologic aspects

Evapotranspiration Intensifies over the Conterminous United States, 1373

Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339

River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128

Hydrologic data

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784

Effect of Short-Term Memory on Hurst Phenomenon, 788

Extracting Hydrologic Information from Spatial Data for HMS Modeling, 833

GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831

Hydrologic models

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

Disaggregation of Daily Rainfall for Continuous Watershed Modeling, 808

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785

Extracting Hydrologic Information from Spatial Data for HMS Modeling, 833

Finite Volume Model for Nonlevel Basin Irrigation, 885

Fractional-Step Method Solution of Diffusive Wave Equation, 772

Hydrologic Assessment of Water Losses in River, 1336

Hydrologic Design of Urban Flood Control Detention Ponds, 827

Integrated Hydrologic Modeling and GIS in Water Resources Management, 197

Integrated Physically Based Rainfall-Runoff Model using FEM, 794

Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337

Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795

Mesoscale Model for Morphologic Change at Tidal Inlets, 1412

Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829

Simple Method for Relating Local Stage and Remote Discharge, 781

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Hydrology

Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Hydrometeorology

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

New Weighing Mechanism for Precipitation Gauges, 780

Hydrostatic pressure

Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222

Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78

Hysteresis

Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085

Bounding Surface Model for Geosynthetic Reinforcements, 390

Hysteresis models

Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135

Seismic Design Method for Thin-Walled Steel Frame Structures, 1087

Hysteretic systems

Hysteretic Systems with Internal Variables, 380

Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284

I beams

Moment Resistance of Steel I-Beam to CFT Column Connections, 1204

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Ice

Bucket Foundation Platforms Installed in Shallow and Ice-Drifting Area, 140

Cold-Air Distribution Comparison for Four Supply Air Diffusers, 37

Ice Rubble Behavior in Punch Tests, 136

Risk and Impact of Natural Hazards on a Road Network, 1273

River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128

River-Ice Ecology. II: Biological Aspects, 129

Theoretical Development of Forces on Cylindrical Ice Booms, 137

Ice control

Design of Cazenovia Creek Ice Control Structure, 134

Ice cover

River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128

River-Ice Ecology. II: Biological Aspects, 129

Ice forces

Design of Cazenovia Creek Ice Control Structure, 134

Ice formation

Laboratory Study of Anchor Ice Growth, 131

Ice jams

Design of Cazenovia Creek Ice Control Structure, 134

Evaluation of Mixed-Population Flood-Frequency Analysis, 778

Hydraulic Roughness of Breakup Ice Jams, 727

Laboratory Observations of Ice Jams in Channel Confluences, 130

Ice sheets

Theoretical Development of Forces on Cylindrical Ice Booms, 137

Idaho

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

SUBJECT INDEX

Identification

Application of Dynamic System Identification to Timber Beams. I, 1121

Application of Dynamic System Identification to Timber Beams. II, 1122

Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698

Illinois

Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041

Image analysis

Quantifying Void Ratio in Granular Materials using Voronoi Tessellation, 199

Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977

Imaging techniques

Urban Planning Using Augmented Reality, 1331

Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Impact forces

Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032

Imperfections

Buckling of Cylindrical Tunnel Liners, 317

Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323

Impoundments

Progressive Failure of Lined Waste Impoundments, 646

In situ tests

Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262

Comparison of Two Pavement Rehabilitation Strategies, 1259

Effects of Construction on Laterally Loaded Pile Groups, 605

Experimental Methods for Estimating In Situ Tensile Force in Tie Rods, 426

Incineration

Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438

Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pt/Al_2O_3 Catalyst, 483

Incinerators

Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440

Incipient motion

Incipient Motion Criteria for Rigid Sediment Grain on Rigid Surface, 338

India

Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279

Energy Tax and Choice of House Construction Techniques in India, 847

Gujarat (Kutch) India M7.7 earthquake of January 26, 2001 and Napa M5.2 earthquake of Sept. 3, 2000, 1591

Numerical Modeling of Tide-Induced Currents in Thane Creek, West Coast of India, 1407

Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908

Regional Flow Duration Models for Large Number of Ungauged Himalayan Catchments for Planning Microhydro Projects, 809

Indiana

Design-Builder Selection for Small Highway Projects, 964

Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841

Indoor air pollution

Environmental Comfort Criteria: Weighting and Integration, 1044

Expert System for Environmental Quality Evaluation, 1045

Industrial plants

Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031

Industrial wastes

Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561

Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505

Industries

Comparison of Cultures in Construction and Manufacturing, 957

Inelastic action

Estimation of Inelastic Deformation Demands of SDOF Systems, 1186

Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7

Inelastic Analysis of Steel Frames with Composite Beams, 1094

Inelastic Large Deflection Modeling of Beam-Columns, 1172

Inelastic Response Spectra Using Conventional and Pulse R-Factors, 1187

Local Versus Global Ductility Demands in Simple Bridges, 1136

Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597

Multiscale Analysis of Multiple Damage Mechanisms Coupled with Inelastic Behavior of Composite Materials, 351

Plastic Hinge Analysis, 1196

Three-Dimensional Inelastic Response of an RC Building during the Northridge Earthquake, 1128

Infiltration

Design of Circular Infiltration Basin under Mounding Effects, 1342

Explicit Solution to Green and Ampt Infiltration Equation, 812

Infiltration Pond Design for Highway Runoff Treatment in Semiarid Climates, 557

Measurements of Air Leakage through Revolving Doors of Institutional Building, 53

Multidimensional Infiltration with Arbitrary Surface Fluxes, 905

Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790

Sprinkler Technologies, Soil Infiltration and Runoff, 887

Infiltration

Infiltration

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Inflow

Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322

Calculation of Inflow and Outflow in Phreatic Aquifers, 856

Formulas for Time of Travel in Channel with Upstream Inflow, 820

Interior-Point Method for Reservoir Operation with Stochastic Inflows, 1341

Multivariate Reservoir Inflow Forecasting Using Temporal Neural Networks, 815

Information management

CITYWORK: Application of Collaborative Technologies for Infrastructure Management, 181

Cognizance of Visual Design Management in Life-Cycle Project Management, 947

Improving Design Coordination for Building Projects. I: Information Model, 249

Improving Design Coordination for Building Projects. II: A Collaborative System, 250

Web-Based Construction Document Processing via a Malleable Frame, 191

Information systems

Model Induction with Support Vector Machines: Introduction and Applications, 196

Planning for Civil Engineering Applications of Information Technology, 952

Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266

Infrastructure

Assessment of Existing Structures—Approaches and Research Needs, 1119

Assessment of Infrastructure Inspection Needs Using Logistic Models, 852

BOT-Based Approaches to Infrastructure Development in China, 837

Challenging Issues in Modeling Deterioration of Combined Sewers, 844

CITYWORK: Application of Collaborative Technologies for Infrastructure Management, 181

Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953

Effects of Accounting and Budgeting on Capital Allocation for Infrastructure Projects, 951

Emerging Materials for Civil Infrastructure: State of the Art, 1578

Financing Infrastructure over Time, 1333

Hong Kong Experience in Managing BOT Projects, 229

Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835

"One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431

Planning for Civil Engineering Applications of Information Technology, 952

Procurement Protocols for Public-Private Partnered Projects, 252

Rebuilding America's Infrastructure, 1540

2001 ASCE TRANSACTIONS

Returning to the Source, 1510

Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843

Scheduling Inspection and Renewal of Large Infrastructure Assets, 850

September Eleventh, The Days After, The Days Ahead, 1553

Unraveling of BOT Scheme: Malaysia's Indah Water Konsortium, 265

US-Japan Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems (1st: 2000: Honolulu, Hawaii), 1619

Why Industry Needs Asset Management Tools, 177

Injection

Pilot-Scale Evaluation of H₂O₂ Injection to Control NOx Emissions, 471

Injuries

Backward Flow Velocities of Submerged Hydraulic Jumps, 715

Evaluation of Drug Testing in the Workplace: Study of the Construction Industry, 263

Technological Intervention to Eliminate Back Injury Risks for Nailing, 240

Inlets, waterways

Aspects of Inlet Boundary Prescription for a Turbulent Flow Field, 733

Hydraulic Design Example—Canal and Pipeline Inlet, 767

Mesoscale Model for Morphologic Change at Tidal Inlets, 1412

Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399

Innovation

Intermodal Innovation, 1505

Technological Trajectories of Construction Innovation, 50

Transformable Structures Design Features and Preliminary Investigation, 39

Inorganic chemicals

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Inorganic contaminants

Evaluation of Laser In Situ Scattering Instrument for Measuring Concentration of Phytoplankton, Purple Sulfur Bacteria, and Suspended Inorganic Sediments in Lakes, 558

Input-output analysis

Estimating Technical and Scale Inefficiencies of Public Transit Systems, 1276

Inspection

Assessment of Infrastructure Inspection Needs Using Logistic Models, 852

Evaluation of SSET: The Sewer Scanner & Evaluation Technology, 1581

Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174

Scheduling Inspection and Renewal of Large Infrastructure Assets, 850

Underwater Investigation Standard Practice Manual, 1617

The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

SUBJECT INDEX

Interstate highways

Installation

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Instream flow

Pool Quality Index: New Method to Define Minimum Flow Requirements of High-Gradient, Low-Order Streams, 556

Instrumentation

Comparison of Two Pavement Rehabilitation Strategies, 1259

Guidelines for Instrumentation and Measurements for Monitoring Dam Performance, 1590

Hydrographic Surveying from Personal Watercraft, 1243

Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046

New Weighing Mechanism for Precipitation Gauges, 780

Insurance

Walkthrough Method for Catastrophe Decision Making, 1439

Intake structures

Returning to the Source, 1510

Intakes

Returning to the Source, 1510

Integral equations

Asymmetric Low-Velocity Impact of a Finite Layer, 336

Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291

Integrating Equation of Gradually Varied Flow, 725

Integrals

Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322

Integrated systems

Decision Support Tool for Life-Cycle Based Solid Waste Management, 178

Environmental Comfort Criteria: Weighting and Integration, 1044

Integrated Computational Life-Cycle Assessment of Buildings, 179

Integrated Hydrologic Modeling and GIS in Water Resources Management, 197

Integrated Surface and Ground Water Management, 1593

Interaction models

Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405

Interactions

Interaction of Foundry Sands with Geosynthetics, 602

Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896

Interactions between PVC Geomembranes and Compacted Clays, 657

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Seismic Elastic Response of Earth Dams with Canyon Interaction, 611

Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133

Interactive systems

VIRCON: Interactive System for Teaching Construction Management, 218

Interchanges

Sharp Curves, 1530

Interface shear

Constitutive Behavior of Geosynthetic Interfaces, 645

Moiré Interferometry Analysis of Fiber Debonding, 350

Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620

Interfaces

Behavior of Composite Concrete Beams with Smooth Interface, 1113

Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073

Constitutive Behavior of Geosynthetic Interfaces, 645

Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291

Effect of Bars Properties on Bond Strength of Galvanized Reinforcement, 1027

Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585

Interface Shear Stress: A New Design Criterion for Plate Debonding, 147

Measuring and Modifying Interface Properties of PVA Fibers in ECC Matrix, 1019

Internal friction

Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595

Internal pressure

Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421

International development

Global Engineering and Construction Change, 921

Internet

Global Engineering and Construction Change, 921

Marketing Your Web Site, 1535

Planning for Civil Engineering Applications of Information Technology, 952

Project-Specific Web Sites: Friend or Foe?, 259

Web-Based Construction Document Processing via a Mobile Frame, 191

Web-Based Decision Support Systems: Case Study in Project Delivery, 202

Web-Centric Framework for Secure and Legally Binding Electronic Transactions in Large-Scale A/E/C Projects, 201

Intersections

Calibration-Free Arterial Link Speed Estimation Model Using Loop Data, 1319

Capacity of Shared Left Turn Lanes—A Comparative Analysis, 1270

Evaluation of Roundabout Performance Using SIDRA, 1271

Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318

Interstate highways

Snow Event Effects on Interstate Highway Crashes, 141

Intrusion

Intrusion

Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Investments

BOT-Based Approaches to Infrastructure Development in China, 837

Genetic Algorithm for Selecting and Scheduling Interdependent Projects, 1385

Why Industry Needs Asset Management Tools, 177

Ion exchange

Ion Exchange of Ammonium in Zeolites: A Literature Review, 512

Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

Iowa

Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294

Iron

Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517

Irrigation

Finite Volume Model for Nonlevel Basin Irrigation, 885

Flap Gate Design for Automatic Upstream Canal Water Level Control, 867

Habitat Restoration and Agricultural Production under Land Retirement, 888

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Modeling Water Distribution for Irrigation Machine with Small Spray Nozzles, 877

Reduced-Runoff Irrigation of Sudan Grass Hay, Imperial Valley, California, 899

Regional Alfalfa Yield, ET_c , and Water Value in Western States, 874

Reservoir Release Policy for Large Irrigation System, 897

Revising the Cutthroat Flume Settlement Rating Adjustment Procedure, 863

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Irrigation efficiency

Analysis and Design of Furrow Irrigation Systems, 878

Analytical Solution for Normal Irrigation Distribution Parameters, 861

Irrigation Scheduling Using Mixed-Integer Linear Programming, 864

Irrigation practices

Analysis and Design of Furrow Irrigation Systems, 878

Irrigation scheduling

Irrigation Scheduling Using Mixed-Integer Linear Programming, 864

Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semiarid Areas, 900

Model for Estimating Evaporation and Transpiration from Row Crops, 901

Irrigation systems

Analysis and Design of Furrow Irrigation Systems, 878

Analytical Solution for Normal Irrigation Distribution Parameters, 861

2001 ASCE TRANSACTIONS

Assessing Sensitivity Factors of Irrigation Delivery Structures, 902

Determining Irrigation Canal Seepage with Electrical Resistivity, 857

Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858

New Algorithm for Hydraulic Calculation in Irrigation Laterals, 890

Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698

Sediment Diversion through Irrigation Outlets, 859

Isolation

Effect of Soil-Particle Size Contrast on Capillary Barrier Performance, 650

Israel

Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Italy

Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320

Vertical Yield Stress of Pisa Clay from Piezocone Tests, 652

Iteration

Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248

Jacking

Base Resistance of Jacked Pipe Piles in Sand, 613

Residual Stresses in Heat-Straightened Steel Members, 969

Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610

Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611

Japan

Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105

Design Method of a Hanger System for Long-Span Suspension Bridge, 75

Determination of Component of Ground-Water Flow from Rainfall Data, 801

Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Reliability-Based Assessment of Suspension Bridges: Application to the Innoshima Bridge, 103

Jets

Scour of Cohesive Soil by Submerged Circular Turbulent Impinging Jets, 722

Joint ventures

Risk Assessment for Construction Joint Ventures in China, 219

Joints

Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086

DVW—Local Reinforcement for Timber Joints, 1174

Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423

Masonry Failure Criterion under Biaxial Stress State, 974

Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415

New Model for Shear Failure of RC Interior Beam-Column Connections, 1089

Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096

Stress Distribution at the Interface Corner of a Tri-Material Structure, 364

Kansas

Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294

Identifying Cause of Declining Flows in the Republican River, 1363

Kaolin

Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495

Kinematics

Combined Analysis of Real-Time Kinematic GPS Equipment and its Users for Height Determination, 1245

Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423

Formulas for Time of Travel in Channel with Upstream Inflow, 820

Load Bearing Capacity of Reinforced Concrete Beams Subjected to Dynamic Cyclic Loads 388

Kinetics

Bioremediation Kinetics of Crude Oil at 5° C, 531

Chlorine Dioxide Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 503

Effect of Temperature on Ozone Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 486

Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543

Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

Reaction Kinetics of Immobilized-Cell Denitrification. I: Background and Model Development, 513

Reaction Kinetics of Immobilized-Cell Denitrification. II: Experimental Study, 514

Knowledge-based systems

Case-Based Reasoning Approach in Bid Decision Making, 214

Impact of Rainfall on the Productivity of Highway Construction, 225

Knowledge-Based Approach to Construction Project Risk Management, 192

Managing Design Changes for Multiview Models, 184

Prototype Diagnosis Expert System with Knowledge Refinement Function, 185

Korea

Bridge to the Future, 1554

Cable Erection Test at Pylon Saddle for Spatial Suspension Bridge, 76

Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Evaluation of Handling Systems for Container Terminals, 1398

A Grand New Bridge, 1486

Kriging

Multiquadric Equations and Optimal Areal Rainfall Estimation, 830

Kuwait

Strategy for Landfill Design in Arid Regions, 1441

Labor

Estimating Labor Production Rates for Industrial Construction Activities, 271

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. I: Model Development, 559

Laboratory tests

Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265

Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872

Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

Laboratory Observations of Ice Jams in Channel Confluences, 130

Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433

Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263

Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673

Lagoons

Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445

Lagrangian functions

Lagrangian Meshfree Formulation for Analysis of Geotechnical Materials, 330

Lakes

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

Characteristics of a Density Current in a Cooling Lake Sidearm, 272

Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756

Evaluation of Laser In Situ Scattering Instrument for Measuring Concentration of Phytoplankton, Purple Sulfur Bacteria, and Suspended Inorganic Sediments in Lakes, 558

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Modeling the Effects of Tripton on Water Clarity: Lake Champlain, 1361

Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372

Water Budget and Vertical Conductance for Magnolia Lake, 797

Laminar flow

1D Numerical Model of Muddy Subaqueous and Sub-aerial Debris Flows, 758

Laminated wood

- Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967
- Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72

Laminates

- Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161
- Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108
- Composites Enhance Timber Bridges, 1538
- Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409
- Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165
- Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading, 160
- Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172
- Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

Land acquisition

- Parkway Payoff, 1564

Land reclamation

- Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11

Land usage

- Habitat Restoration and Agricultural Production under Land Retirement, 888
- Residential Land Development Practices: A Textbook on Development Land Into Finished Lots, 1602

Landfills

- Biofilm Growth and Mineral Precipitation in Synthetic Leachate Columns, 647
- Constitutive Behavior of Geosynthetic Interfaces, 645
- Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443
- Cost-Effective Landfill Closure: Boston's "Menino Project", 1444
- Dynamic Simulation of Landfill Waste Stabilization, 566
- Finding a Better Cover, 1484
- Landfill Carrying with a Woodland Ecosystem, 1459
- Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447
- Natural Covers for Landfills and Buried Waste, 525
- Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498
- Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511
- Predicting Leakage through Composite Landfill Liners, 617
- Progressive Failure of Lined Waste Impoundments, 646
- Seismic Performance of Hillside Fills, 653
- Strategy for Landfill Design in Arid Regions, 1441
- Use of Landfill Gas for Electricity Generation, 1442

Landslides

- GIS-Based Estimation of Slope Stability, 1422

Laplace transform

- Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709

Lateral displacement effect

- Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69
- Improving Structural Response to Permanent Ground Displacement, 1467

Lateral forces

- Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590
- Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032

Lateral loads

- Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- Does Lateral Stress Really Influence Settlement?, 628
- Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69
- Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588
- Inelastic Analysis of Steel Frames with Composite Beams, 1094
- London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104
- Monotonic Lateral Loading of Piles in Calcareous Sand, 601
- Nonlinear Finite-Element Modeling of Batter Piles under Lateral Load, 626
- Response of Laterally Loaded Large-Diameter Bored Pile Groups, 630
- SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654
- Three-Dimensional Analysis of Performance of Laterally Loaded Sleeved Piles in Sloping Ground, 616
- Ultimate Lateral Resistance of Pile Groups in Sand, 614

Lattice design

- Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1

Lattices

- Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323

Laws

- Engineering Your Future, 1579
- Patents: What Every Engineer Should Know, 1519
- Rental Cars Unique Accident Trends, 1275

Layered soils

- Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Layered systems

- BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295
- Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291
- Heat Conduction Waves in Bilayer Cement Concrete Structures, 417
- Refined Global Approximation Theory of Multilayered Plates and Shells, 292

Leachates

- Biofilm Growth and Mineral Precipitation in Synthetic Leachate Columns, 647

SUBJECT INDEX

Limit states

Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445

Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498

Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511

Leaching

Bioleaching of Metal-Contaminated Soil in Semicontinuous Reactor, 530

Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453

Performance and Leaching Assessment of Flowable Slurry, 474

Lead

Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473

Leadership

Collective Excellence: Building Effective Teams, 1572

The Emerging Role of Project Management, 922

Engineering, Leadership, and Integral Philosophy, 1052

Evolution, Not Revolution, 959

Innovations and Best Practices: Leadership Development and Retention, 912

Rebuilding America's Infrastructure, 1540

Seven Keys to a Successful ASCE Student Chapter or Club: Guide for Student Leaders and Faculty Advisors, 1055

Leakage

Leak Detection in Pipes by Frequency Response Method, 681

Measurements of Air Leakage through Revolving Doors of Institutional Building, 53

Predicting Leakage through Composite Landfill Liners, 617

Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13

Water Budget and Vertical Conductance for Magnolia Lake, 797

Learning

Development of a Teaching Tool for Building Construction, 38

Model Induction with Support Vector Machines: Introduction and Applications, 196

Lebanon

Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845

Length

Another Look at Hartford Civic Center Coliseum Collapse, 1034

Levees

Engineered Levee Breaches for Flood Mitigation, 711

Influence of Porosity on Piping Models of Levee Failure, 669

Leveling

Free Station Method of Leveling, 1244

State of Practice of Residential Floor Slab Flatness, 1047

Transformation of Ellipsoid Heights to Local Leveling Heights, 1249

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Liability

Bad Engineering Yields Even Worse Lawsuits, 1049

Life cycle cost

Bridge Lifetime System Reliability under Multiple Limit States, 116

Computer Model for Life Cycle Cost Analysis of Roadway Pavements, 190

Evolution for Formal Maintainability Program for Large Manufacturing Company, 1036

Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843

Selection of Sprinkler Lateral for Shorter Life Cycle, 893

Study of Noise Barrier Life-Cycle Costing, 1282

US-Japan Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems (1st: 2000: Honolulu, Hawaii), 1619

Life cycles

Cognizance of Visual Design Management in Life-Cycle Project Management, 947

Decision Support Tool for Life-Cycle Based Solid Waste Management, 178

Estimation of CO₂ Emissions in Life Cycle of Residential Buildings, 260

Integrated Computational Life-Cycle Assessment of Buildings, 179

Linear Reference System for Life-Cycle Integration, 182

Reliability-Based Life-Cycle Management of Highway Bridges, 176

Lime

Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343

Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975

Relative Dissolution Rates of Several Hydrated Limes, 499

Limit analysis

Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222

Local Collapse in Soft Rock Bank Cavities, 665

Numerical Method for Lower-Bound Solution of the Rigid-Plastic Limit Analysis Problem, 404

Limit equilibrium

Progressive Failure of Lined Waste Impoundments, 646

Spatial Distribution of Safety Factors, 583

Limit states

Evolving Toward Project-Specific Reliability: Are We Sure It's a Good Idea?, 1241

Multiple Linearization Method for Nonlinear Reliability Analysis, 414

Rule of Equivalent States in Limit-State Analysis of Soils, 578

Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 1109

Linear analysis

Linear analysis

Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332

Linear programming

Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222

Irrigation Scheduling Using Mixed-Integer Linear Programming, 864

Linear systems

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Linear Reference System for Life-Cycle Integration, 182

Linear Scheduling Model: Float Characteristics, 241

Liners

Constitutive Behavior of Geosynthetic Interfaces, 645

Predicting Leakage through Composite Landfill Liners, 617

Progressive Failure of Lined Waste Impoundments, 646

Strategy for Landfill Design in Arid Regions, 1441

Liquefaction

Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607

Equivalent Number of Uniform Stress Cycles for Soil Liquefaction Analysis, 663

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 597

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 644

Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608

Monotonic and Cyclic Liquefaction of Very Loose Sands with High Silt Content, 598

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Probabilistic Framework for Liquefaction Potential by Shear Wave Velocity, 632

Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609

Liquids

Practical Method to Prevent Liquid-Column Separation, 724

Litigation

Bad Engineering Yields Even Worse Lawsuits, 1049

Patents: What Every Engineer Should Know, 1519

Live loads

Design Live Loads for Passenger Cars Parking Garages, 1104

Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212

Live Load Distribution for Steel Girder Bridges, 111

Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55

Live Load Tests of the San Antonio "Y", 119

Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91

Response of Prestressed Concrete I-Girder Bridges to Live Load, 54

2001 ASCE TRANSACTIONS

Stochastic Model for Multilane Traffic Effects on Bridges, 71

Load and resistance factor design

Evolving Toward Project-Specific Reliability: Are We Sure It's a Good Idea?, 1241

Load combinations

Inelastic Analysis of Steel Frames with Composite Beams, 1094

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Load distribution

Live Load Distribution for Steel Girder Bridges, 111

Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55

Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91

Response of Prestressed Concrete I-Girder Bridges to Live Load, 54

Load factors

Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610

Load resistance

Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588

Load tests

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70

Diagnostic Load Testing of Two-Way Post-Tensioned Concrete Slab, 1470

Full-Scale Load Test of a Sand-Jack, 1473

Live Load Tests of the San Antonio "Y", 119

Load Tests on Prestressed Precast Concrete and Timber Piles, 666

Load Tests on Residual Soil and Settlement Prediction on Shallow Foundation, 649

Load transfer

Monotonic Lateral Loading of Piles in Calcareous Sand, 601

Loading rate

Ice Rubble Behavior in Punch Tests, 136

Load Rating of Masonry Arch Bridges, 64

Loads

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

Approximate Analysis Method for Modular Tubular Falsework, 1101

Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108

Design Considerations for Aircraft Bridges, 112

Effect of Material and Geometry Variations on Beam under Patch Loading, 1178

Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197

Negative Shear Lag Effect in Box Girders with Varying Depth, 1213

Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050

Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125

SUBJECT INDEX

Marketing

Uncertainty in Mechanics Problems—Interval-Based Approach, 341

Localization

Localization Issues in Force-Based Frame Elements, 1216

Location

Spatial Location-Allocation Model for Multiple Center Villages, 1330

Locks

Control Alternatives at a Waterway Lock, 1389

Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Loess

Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70

Logistics

Assessment of Infrastructure Inspection Needs Using Logistic Models, 852

Low flow

Power Distribution for Low Streamflows, 822

Machinery

Tunnel with Vision, 1492

Maine

Composites Enhance Timber Bridges, 1538

Maintenance

Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105

CITYWORK: Application of Collaborative Technologies for Infrastructure Management, 181

Comparison of Two Maintainability Programs, 239

Evolution for Formal Maintainability Program for Large Manufacturing Company, 1036

Prioritization of Ten Embankment Dams According to Physical Deficiencies, 600

Risk Indexing Tool to Assist in Prioritizing Improvements to Embankment Dam Inventories, 599

Maintenance costs

Optimal Work Zone Lengths for Four-Lane Highways, 1269

Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843

Malaysia

Unraveling of BOT Scheme: Malaysia's Indau Water Consortium, 265

Management

Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876

Engineering Your Future, 1579

A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910

Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843

Strategic Management in Engineering Organizations, 948

Management methods

Civil Engineering Practice in the Twenty-First Century: Knowledge and Skills for Design and Management, 1568

Comparison of Cultures in Construction and Manufacturing, 957

Corporate Governance and Role of CEO in Engineering Companies, 943

Quality Function Deployment in Design/Build Projects, 41

Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913

Strategic Management in Design Firms, 1054

Using the Power of Diversity to Retain Staff: Developing Tools to Ensure Success, 909

Management planning

Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347

Managers

The Emerging Role of Project Management, 922

Questions and Answers for Managers, 937

Manganese

Assessment of Fate of Manganese in Oxide-Coated Filtration Systems, 570

Manholes

Performance Investigation of Concrete Manhole Inlets, 1478

Supercritical Flow in 45° Junction Manhole, 869

Manufacturing

Comparison of Cultures in Construction and Manufacturing, 957

Evolution for Formal Maintainability Program for Large Manufacturing Company, 1036

Reliability-Based Optimization Considering Manufacturing and Operational Uncertainties, 36

Manufacturing facilities

Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037

Mapping

Review of Automated Floodplain Delineation from Digital Terrain Models, 1378

Maps

Generalized Flood Skew: Map versus Watershed Skew, 807

Marble

Damage of Marble from Cyclic Loading, 1028

Fracture Mechanics of Marble Using a Splitting Tension Test, 1020

Marine clays

Recovery and Marine Clay Stabilization of Heavy Metals Present in Spent Hydrotreating Catalysts, 544

Marine terminals

Terminal Island Turnaround, 1528

Marine transportation

Effect of Seasonal Factors on Performance of Container Terminals, 1394

Marketing

Engineering Your Future, 1579

Marketing Your Web Site, 1535

The Power of the Press Release, 1485

Role of Marketing Intelligence in Making Pricing Policy in Construction, 956

Markov chains

Markov chains

Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383

Maryland

Delicate Procedure, 1507

Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296

Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829

Masonry

Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343

Homogenization of Masonry Using Numerical Simulations, 328

Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44

In-Plane Analysis of Masonry Infill Materials, 1479

Load Rating of Masonry Arch Bridges, 64

Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197

Masonry Failure Criterion under Biaxial Stress State, 974

Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137

Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

Rediscovering the Lost City, 1480

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

Mass

Response Spectrum Superposition for Structures with Uncertain Properties, 303

Mass transfer

Field Study, Design, and Catalyst Cost of Selective Catalytic Reduction Process, 520

Gas-Liquid Mass Transfer along Small Sewer Reaches, 482

Interaction of Soil Air Permeability and Soil Vapor Extraction, 434

Load Dampening System for Vapor Phase Bioreactors, 457

Mass Transfer of Ozone in Semibatch Stirred Reactor, 565

Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Mass transport

Volatile Organic Compound (VOC) Transport through Compacted Clay, 582

Massachusetts

Estimating Equation for Mixed Populations of Floods in Massachusetts, 779

Material properties

Effect of Material and Geometry Variations on Beam under Patch Loading, 1178

Effects of Random Material Properties on Buckling of Composite Plates, 378

Emerging Materials for Civil Infrastructure: State of the Art, 1578

Experimental Characterization of Viscoelastic Materials as Vibration Dampers, 389

2001 ASCE TRANSACTIONS

Homogenization of Masonry Using Numerical Simulations, 328

Numerical Methodology in Fatigue Analysis: Applications, 1260

Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977

Materials

Emerging Materials for Civil Infrastructure: State of the Art, 1578

Lagrangian Meshfree Formulation for Analysis of Geotechnical Materials, 330

Simulated Micromechanical Models using Artificial Neural Networks, 362

Time-Dependent Creep Behavior of Particulate Materials, 997

Uncertainty in Mechanics Problems—Interval-Based Approach, 341

Materials failure

The Case of a Broken Plank, 1040

Contemporary and Traditional Wall-System Failures, 1035

Homogenization of Masonry Using Numerical Simulations, 328

Materials tests

Damage Quantification in Metal Matrix Composites, 311

Development of a Geomaterial from Dredged Bay Mud, 987

Direct Tensile Tests on Concrete-like Materials: Structural and Constitutive Behaviors, 320

Mathematical models

Collaborative Multidisciplinary Design Optimization, 924

Mathematical Model of Biofiltration of VOCs: Effect of Nitrate Concentration and Backwashing, 510

Optimal Work Zone Lengths for Four-Lane Highways, 1269

Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293

Quantitative Cellular Automaton Model for Biofilms, 527

Resource Scheduling Using Neural Dynamics Model of Adeli and Park, 213

Stress-Strain-Temperature Relationship for Structural Steel, 1016

Study of Sewage Sludge Pyrolysis Mechanism and Mathematical Modeling, 502

Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444

Mathematical programming

System Reliability-Based Configuration Optimization of Trusses, 1180

Maximum dry density

Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443

Maximum probable flood

Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783

Measurement

Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692

SUBJECT INDEX

Mexico

- Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329
- Determining Fault Permeability from Subsurface Barometric Pressure, 643
- General Approach to Payment Adjustments for Flexible Pavements, 1258
- Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346
- Measurements of Air Leakage through Revolving Doors of Institutional Building, 53
- Prediction and Measurement of Bubble Formation in Water Treatment, 551
- Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792
- Spatial Data, Coordinate Systems, and the Science of Measurement, 1253
- State-Specific Vehicle Noise Emission Characteristics, 1321
- Technique for Measuring Moisture Storage Capacity at High Moisture Levels, 1015
- Turbine Discharge Measurement by the Velocity-Area Method, 738
- Measuring instruments**
 - Evaluation of Laser In Situ Scattering Instrument for Measuring Concentration of Phytoplankton, Purple Sulfur Bacteria, and Suspended Inorganic Sediments in Lakes, 558
- New Weighing Mechanism for Precipitation Gauges, 780
- Price Current-Meter Standard Raing Development by the U.S. Geological Survey, 691
- Mechanical properties**
 - Effects of Organic Cation Structure on Behavior of Organobentonites, 603
 - Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157
 - Micromechanic Formulation of Macroscopic Structures in a Granular Medium, 393
 - Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977
- Mechanics**
 - Uncertainty in Mechanics Problems—Interval-Based Approach, 341
- Membranes**
 - Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232
 - Effects of Operating Parameters in Tubular Ultrafiltration, 465
 - Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations, 132
 - Optimization of Hollow-Fiber Design and Low-Pressure Membrane System Operation, 489
 - Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Memoirs of deceased members**
 - Brother Benjamin Austin Barry, FSJ, 1622
 - Claude A. Fetzer, Fellow, ASCE, 1623
 - William Wells Green, 1624
- Metals**
 - Bioleaching of Metal-Contaminated Soil in Semicontinuous Reactor, 530
 - Damage Quantification in Metal Matrix Composites, 311
 - Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453
 - Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS, 529
 - Neural Network Model for Uplift Load Capacity of Metal Roof Panels, 1218
 - Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473
 - Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9
 - Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450
 - Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480
- Meteorological data**
 - New Weighing Mechanism for Precipitation Gauges, 780
- Meteorology**
 - Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695
- Methane**
 - Field Experiments to Determine Gas Transfer at Gated Sills, 747
 - Numerical Model for Biological Oxidation and Migration of Methane in Soils, 1464
- Methodology**
 - Database-Assisted Design, Standardization, and Wind Direction Effects, 1169
 - Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects, 211
 - Energy-Based Methodology for Ductile Design of Concrete Columns, 1229
 - Free Station Method of Leveling, 1244
 - Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248
 - Liner Lessons, 1552
 - Method for Estimating Size-Specific Particulate Emission Inventories, 571
 - A Methodology for Determining Price Variation in Project Execution, 254
 - Multiple Linearization Method for Nonlinear Reliability Analysis, 414
 - New Project Procurement Process, 512
 - Pool Quality Index: New Method to Define Minimum Flow Requirements of High-Gradient, Low-Order Streams, 556
 - Practical Method to Prevent Liquid-Column Separation, 724
 - Simple Method of Modeling PVD-Improved Subsoil, 659
 - Simplified Method to Assess Freeze-Thaw Durability of Soil Cement, 1000
 - Useful and Practical Hints on the Process of Producing High-Strength Concrete, 1476
 - Walkthrough Method for Catastrophe Decision Making, 1439
- Mexico**
 - Environmental Engineering in Mexico, 1056
 - Mexico City Soil Behavior at Different Strains: Observations and Physical Interpretation, 641

Mexico

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Michigan

Replacement Strategy, 1534

Microbes

Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432

Microbial activity

Bioleaching of Metal-Contaminated Soil in Semicontinuous Reactor, 530

Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435

Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445

Microstructure

Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975

Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608

Microtunneling

Standard Construction Guidelines for Microtunneling, 1607

Microwave sensors

Status of Roller Mountable Microwave Asphalt Pavement Density Sensor, 215

Middle East

Value Engineering and Optimal Building Projects, 42

Mine drainage

Physical and Chemical Evaluation of CCBs for Alternative Uses, 276

Mineral analysis

Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473

Mines

Contingent Valuation of Some Externalities from Mine Dewatering, 1375

Minnesota

Assessing Frost Resistance of Concrete Aggregates in Minnesota, 139

Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564

Minority groups

Differences in Nonverbal Communication Styles between Cultures: The Latino-Anglo Perspectives, 935

Diversity by the Numbers, 938

Diversity in Engineering, 931

Diversity Is Smart Business for True Success, 936

Engineering Academic Diversity: It's the Nondiverse Who Need to Participate, 939

Face Value: The Silent Diversity Challenge, 929

Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering, and Technology, 930

Mentoring, 933

A New Day for ASCE, 941

Questions and Answers for Managers, 937

Retention of Nontraditional Engineering and Construction Professionals, 946

2001 ASCE TRANSACTIONS

Structural Engineering for Attaining and Maintaining a Diverse Workforce, 940

Mississippi

Sharp Curves, 1530

Mississippi River

Development of Integrated Sediment Rating Curves Using ANNs, 672

Mixing

Approach to Steady State in Completely Mixed Flow Reactors, 431

Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755

Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971

Mixing in Stratified Jets, 685

Role of Bed Discordance at Asymmetrical River Confluences, 701

Mixtures

Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623

Behavior of Compacted Soil-Fly Ash-Carbid Lime Mixtures, 640

Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302

Implementation of Porous Media Formulation for Geomaterials, 296

Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024

Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383

Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975

Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315

Performance and Leaching Assessment of Flowable Slurry, 474

RCC Mix Design—Soils Approach, 976

Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548

Modal analysis

Ambient Vibration of Long-Span Cable-Stayed Bridge, 60

Double-Modal Transformation and Wind Engineering Applications, 329

Model accuracy

Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329

Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858

Model verification

Concrete-Steel Composite Coupling Beams: II: Subassembly Testing and Design Verification, 1145

Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636

Models

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373

Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791

SUBJECT INDEX

Models

- Assessment of Infrastructure Inspection Needs Using Logistic Models, 852
- Avalanche Statistics of Interface Crack Propagation in Fiber Bundle Model: Characterization of Cohesive Crack, 352
- Challenging Issues in Modeling Deterioration of Combined Sewers, 844
- Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494
- Comparison of Models for Computing Drainage Discharge, 904
- Comprehensive Transboundary International Water Quality Management Agreement, 1574
- Computational Modeling of Strand-Based Wood Composites, 375
- Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313
- Development of Causal Model of Construction Accident Causation, 251
- Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194
- Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721
- A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784
- Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112
- Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110
- Effect of Seasonal Factors on Performance of Container Terminals, 1394
- Elastoplastic Model for Cemented Soils, 633
- Engineering Approach for Tier 2 RBCA Evaluations at NAPL-Contaminated Sites, 1370
- Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755
- Explicit Solution to Green and Ampt Infiltration Equation, 812
- Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970
- GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831
- GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832
- Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320
- Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573
- Improvement Algorithm for Limited Space Scheduling, 224
- Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392
- Improving Design Coordination for Building Projects. I: Information Model, 249
- Improving Design Coordination for Building Projects. II: A Collaborative System, 250
- Inelastic Large Deflection Modeling of Beam-Columns, 1172
- Influence of Porosity on Piping Models of Levee Failure, 669
- Influence of Supporting Base Characteristics on Shrinkage-Induced Stresses in Concrete Pavements, 1312
- Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500
- Irrigation Scheduling Using Mixed-Integer Linear Programming, 864
- Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835
- Linear Refraction-Diffraction Model for Steep Bathymetry, 1397
- Linear Scheduling Model: Float Characteristics, 241
- Managing Design Changes for Multiview Models, 184
- A Methodology for Determining Price Variation in Project Execution, 254
- Mixing in Stratified Jets, 685
- Model for Evaluating Bridge Construction Plans, 258
- Model of Compaction Grouting, 658
- Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342
- Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415
- Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315
- Modeling Klamath River System Operations for Quantity and Quality, 1367
- Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. II: Extensions and Applications, 560
- Modeling Noise at Elevated Highways in Urban Areas: A Practical Application, 1335
- Modeling of Concrete Cracking Induced by Steel Expansion, 990
- Modeling of Finger-Joint Failure in Glued-Laminated Timber Beams, 1176
- Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007
- Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865
- Modeling the Effects of Tripton on Water Clarity: Lake Champlain, 1361
- Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743
- Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497
- Modeling Water Distribution for Irrigation Machine with Small Spray Nozzles, 877
- Model-Predicted Groundwater Circulation Well Performance, 1462
- Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540
- New Approach for Modeling Confined Concrete. I: Circular Columns, 1157
- New Approach for Modeling Confined Concrete. II: Rectangular Columns, 1158
- New General Pore Size Distribution Model by Classical Thermodynamics, Application: Activated Carbon, 464
- New MOC Model of Seawater Transport in Coastal Aquifers, 817
- Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498
- Object-Oriented Model for Repetitive Construction Scheduling, 234
- Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243
- Orienting Fibers by Extrusion in Reinforced Reactive Powder Concrete, 345

- Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521
- Piece-by-Piece Approach to Solving Large Nonlinear Water Resources Management Models, 1374
- Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215
- Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050
- Quantification of Uncertainty in Structural Dynamic Models, 35
- Review of Resistive Force Models for Earthmoving Processes, 29
- River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528
- Sediment Transport in Proposed Geomorphic Channel for Napa River, 752
- Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9
- Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122
- Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118
- Theory and Full-Bridge Modeling of Wind Response of Cable-Supported Bridges, 99
- Two-Dimensional Flood Plain Flow. II: Model Validation, 819
- Ultimate Behavior of Bolted T-Stubs. I: Theoretical Model, 1151
- Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152
- Unsteady-State Inverse Chlorine Modeling in Pipe Networks, 730
- Urban Drainage Modeling, 1618
- Use of a Modified Network Model for Analyzing Evacuation Patterns in High-Rise Buildings, 40
- Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533
- Vehicle Dynamics Model for Predicting Maximum Truck Acceleration Levels, 1307
- Work-Time Model for Engineers, 230
- Modular structures**
- Design, Specification, Installation, and Maintenance of Modular Bridge Expansion Joint Systems, 117
- Modulus of elasticity**
- Compressive Behavior of Concrete with Vitrified Soil Aggregate, 1018
- Fracture Properties of High-Strength Concrete, 978
- Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
- Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288
- Moisture**
- Technique for Measuring Moisture Storage Capacity at High Moisture Levels, 1015
- Moisture content**
- Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443
- RCC Mix Design—Soils Approach, 976
- Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973
- Technique for Measuring Moisture Storage Capacity at High Moisture Levels, 1015
- Moisture uptake**
- Technique for Measuring Moisture Storage Capacity at High Moisture Levels, 1015
- Moments**
- The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6
- Monitoring**
- Distributed System for Coastal Infrastructure Modeling and Assessment, 180
- Guidelines for Instrumentation and Measurements for Monitoring Dam Performance, 1590
- Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046
- Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450
- Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749
- Monte Carlo method**
- Case-Based Reasoning Approach in Bid Decision Making, 214
- Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Moon**
- Silicon PV Cell Production on the Moon, 26
- Surface Cleanliness Effect on Lunar Soil Shear Strength, 604
- Morphology**
- Numerical Morphological Modeling of Open-Check Dams, 678
- Mortars**
- Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343
- Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
- Masonry Failure Criterion under Biaxial Stress State, 974
- Measuring and Modifying Interface Properties of PVA Fibers in ECC Matrix, 1019
- Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848
- Motion**
- Rocking Response of Anchored Blocks under Pulse-Type Motions, 334
- Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333
- Motion effects**
- Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121
- Mountain streams**
- Numerical Morphological Modeling of Open-Check Dams, 678
- Rational Criterion for Designing Opening of Slit-Check Dam, 677
- Movable bed models**
- Development and Geometric Similarity of Alluvial Deltas, 671
- Numerical Morphological Modeling of Open-Check Dams, 678

SUBJECT INDEX

- Mud**
 - 1D Numerical Model of Muddy Subaqueous and Sub-aerial Debris Flows, 758
 - Development of a Geomaterial from Dredged Bay Mud, 987
- Multiple objective analysis**
 - Incorporating Uncertainty and Multiple Objectives in Real-Time Route Selection, 1322
- Multiple use**
 - Transformable Structures Design Features and Preliminary Investigation, 39
- Multi-port diffuser**
 - Performance of Tee Diffusers in Shallow Water with Crossflow, 674
- Municipal engineering**
 - Why Industry Needs Asset Management Tools, 177
- Municipal wastes**
 - Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440
 - Decision Support Tool for Life-Cycle Based Solid Waste Management, 178
 - Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445
 - Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447
 - Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. I: Model Development, 559
 - Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. II: Extensions and Applications, 560
 - Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439
- Nails**
 - Technological Intervention to Eliminate Back Injury Risks for Nailing, 240
 - Withdrawal Strength of Threaded Nails, 1124
- NASA**
 - Space Solar Power: A Major New Energy Option?, 20
 - Space Solar Power: An Assessment of Challenges and Progress, 21
 - Space Solar Power: Environmental Questions and Future Studies, 25
 - Technical Assessment of Space Solar Power Research Program, 22
- Native Americans**
 - Native American Imprint, 1543
- Natural frequency**
 - Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369
 - Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57
- Navier-Stokes equations**
 - Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382
- Nearshore circulation**
 - Wave Energy and Direction Observed Near Pier, 1380
- Nebraska**
 - Identifying Cause of Declining Flows in the Republican River, 1363

Neural networks

- Pathogen and Pathogen Indicator Removal Characteristics in Treatment of Wetland Systems, 1457
- Negative shear lag**
 - Negative Shear Lag Effect in Box Girders with Varying Depth, 1213
- Negotiations**
 - Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953
- Netherlands**
 - Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692
 - Monitoring Two Tunnels, 1493
 - Tunnel with Vision, 1492
- Network analysis**
 - Project-Specific Web Sites: Friend or Foe?, 259
 - Spatial Location-Allocation Model for Multiple Center Villages, 1330
- Network design**
 - Strategy for Designing Geodetic Network with High Reliability and Geometrical Strength, 1250
- Network geometry**
 - Strategy for Designing Geodetic Network with High Reliability and Geometrical Strength, 1250
- Networks**
 - Applying Modified Minimum Moment Method to Multiple Resource Leveling, 233
 - Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359
 - Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248
 - Prototype Diagnosis Expert System with Knowledge Refinement Function, 185
 - River Basin Network Model for Integrated Water Quantity/Quality Management, 1414
- Neural networks**
 - Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561
 - Application of a Neural Network Model to Forecast Short-Term Pavement Crack Condition: Florida Case Study, 853
 - Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308
 - Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205
 - Derivation of Pareto Front with Genetic Algorithm, and Neural Network, 777
 - Development of Integrated Sediment Rating Curves Using ANNs, 672
 - Estimating Labor Production Rates for Industrial Construction Activities, 271
 - Model Induction with Support Vector Machines: Introduction and Applications, 196
 - Multireservoir Modeling with Dynamic Programming and Neural Networks, 1345
 - Multivariate Reservoir Inflow Forecasting Using Temporal Neural Networks, 815
 - Neural Network Model for Uplift Load Capacity of Metal Roof Panels, 1218
 - Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540
 - Neural Networks as Routine for Error Updating of Numerical Models, 684

- Neural Networks for Multiobjective Adaptive Structural Control, 1095
- Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174
- Preliminary Design System for Concrete Box Girder Bridges, 194
- Resource Scheduling Using Neural Dynamics Model of Adeli and Park, 213
- Sensitivity Analysis of Neural Networks in Spool Fabrication Productivity Studies, 208
- Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166
- Simulated Micromechanical Models using Artificial Neural Networks, 362
- Training Artificial Neural Networks to Perform Rainfall Disaggregation, 776
- Nevada**
- Contingent Valuation of Some Externalities from Mine Dewatering, 1375
- Returning to the Source, 1510
- New Jersey**
- Design-Builder Selection for Small Highway Projects, 964
- New Mexico**
- Competitive Edge, 1529
- High-Performance Highway, 1483
- New York**
- Design of Cazenovia Creek Ice Control Structure, 134
- Modeling Traffic Delays at Northern New York Border Crossings, 1323
- Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372
- River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528
- Terminal Island Turnaround, 1528
- New York City**
- Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120
- Extended Life Span, 1539
- Life at the End of the Tunnel, 1512
- MSRP: Model for Station Rehabilitation Planning, 842
- Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5
- Towing Achievement, 1548
- New Zealand**
- New Zealand Bridge Scour, 716
- Risk and Impact of Natural Hazards on a Road Network, 1273
- Two-Dimensional Flood Plain Flow. II: Model Validation, 819
- Nigeria**
- Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274
- A Methodology for Determining Price Variation in Project Execution, 254
- Time-Overrun Factors in Nigerian Construction Industry, 261
- Nitrates**
- Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451

- Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862
- Mathematical Model of Biofiltration of VOCs: Effect of Nitrate Concentration and Backwashing, 510
- SBR System for Phosphorus Removal: Linear Model Based Optimization, 442
- Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463
- Nitrification**
- Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462
- Nitrification/Denitrification in Intermittent Aeration Process for Swine Wastewater Treatment, 516
- pH-Stat Titration to Assess Nitrification Inhibition, 515
- SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441
- Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470
- Nitrites**
- Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968
- Nitrogen**
- Ion Exchange of Ammonium in Zeolites: A Literature Review, 512
- Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866
- Nitrogen oxide**
- Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493
- Pilot-Scale Evaluation of H_2O_2 Injection to Control NO_x Emissions, 471
- Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470
- Noise**
- Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329
- Environmental Comfort Criteria: Weighting and Integration, 1044
- Expert System for Environmental Quality Evaluation, 1045
- Modeling Noise in Elevated Highways in Urban Areas: A Practical Application, 1335
- Parking Facilities in Urban Areas: Air and Noise Impacts, 1325
- State-Specific Vehicle Noise Emission Characteristics, 1321
- Noise control**
- Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329
- Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041
- Study of Noise Barrier Life-Cycle Costing, 1282
- Transporting Hong Kong, 1490
- Nonaqueous phase liquids**
- Engineering Approach for Tier 2 RBCA Evaluations at NAPL-Contaminated Sites, 1370
- Experimental Validation and Applications of a Fluid Infiltration Model, 449
- Nondestructive tests**
- Application of Dynamic System Identification to Timber Beams. I, 1121

SUBJECT INDEX

- Application of Dynamic System Identification to Timber Beams. II, 1122
- Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262
- Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105
- Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994
- Comparison of Two Pavement Rehabilitation Strategies, 1259
- Fatigue Reliability Analysis using Nondestructive Inspection, 1181
- Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346
- Nonlinear analysis**
- Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- BART SFO Extension Aerial Guideways: Using Nonlinear Analysis to Control and Minimize Seismic Damage, 100
- Cyclic Analysis of Wood Shear Walls, 1123
- Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7
- Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182
- Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612
- Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147
- Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148
- Nonlinear Analysis of RC Beam Subject to Cyclic Loading, 1235
- Nonlinear Flexural Behavior of Prestressed Concrete Girder Bridges, 89
- Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
- Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082
- Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Pseudoforce Method for Nonlinear Analysis and Reanalysis of Structural Systems, 1138
- Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118
- Three-Dimensional Micromechanics-Based Constitutive Framework for Analysis of Pultruded Composite Structures, 361
- Nonlinear programming**
- Optimal Identification of Ground-Water Pollution Sources and Parameter Estimation, 1338
- Piece-by-Piece Approach to Solving Large Nonlinear Water Resources Management Models, 1374
- Nonlinear response**
- Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333
- Second-Order Superharmonic Wave Loading on Jack-Up Platforms, 1417
- Seismic Interaction in Cable-Connected Equipment Items, 407
- Stability Analysis of Box-Girder Cable-Stayed Bridges, 62

Numerical models

- Nonlinear systems**
- Framework for Finite-Element-Based Large Increment Method for Nonlinear Structural Problems, 363
- Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698
- Nonpoint pollution**
- Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337
- Optimal Identification of Ground-Water Pollution Sources and Parameter Estimation, 1338
- Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379
- Nonuniform flow**
- Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745
- Normal stress**
- Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080
- North America**
- Establishing Practical Approach for Design Consistency Evaluation, 1291
- Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137
- North Dakota**
- Lessons from Grand Forks: Planning Nonstructural Flood Control Measures, 1438
- Notch toughness**
- Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8
- Nuclear power plants**
- Nuclear Shutdown, 1501
- Numerical analysis**
- Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278
- In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299
- Numerical Analysis for Lateral Weir Flow, 889
- Numerical Analysis of Geomaterials within Theory of Porous Media, 297
- Numerical Analysis of Multiple Cracks in Concrete Using the Discrete Approach, 1195
- Numerical Methodology in Fatigue Analysis: Applications, 1260
- Numerical Study on Flow over Buildings in Street Canyon, 475
- Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286
- Numerical models**
- 1D Numerical Model of Muddy Subaqueous and Subaerial Debris Flows, 758
- 3D Analytic Model for Testing Numerical Tidal Models, 734
- 3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676
- Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821
- Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396
- Cyclic Analysis of Wood Shear Walls, 1123

- DVW—Local Reinforcement for Timber Joints, 1174
- Evaluation of Numerical Models of Flood and Tide Propagation in Channels, 744
- Fire Resistance of Steel Frames using Classical and Numerical Methods, 1167
- Flow over Ogee Spillway: Physical and Numerical Model Case Study, 726
- Functional Relationship to Describe Drains with Entrance Resistance, 903
- Influence of Nonassociativity on the Bearing Capacity of a Strip Footing, 661
- Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416
- Neural Networks as Routine for Error Updating of Numerical Models, 684
- Numerical Method for Lower-Bound Solution of the Rigid-Plastic Limit Analysis Problem, 404
- Numerical Model for Biological Oxidation and Migration of Methane in Soils, 1464
- Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Numerical Modeling of a Servohydraulic Testing System for Structures, 372
- Numerical Modeling of Tide-Induced Currents in Thane Creek, West Coast of India, 1407
- Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399
- Numerical Morphological Modeling of Open-Check Dams, 678
- Numerical Studies on Smoke Filling Process in an Airport Terminal, 46
- Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
- Optimal Furrow Design. I: Time of Advance Equation, 883
- Predicting Leakage through Composite Landfill Liners, 617
- Prediction of Lee-Wake Scouring of Pipelines in Currents, 1391
- Response of Timber Bridge to Traffic Loading, 63
- Simple Curvilinear Method for Numerical Models of Open Channels, 757
- Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382
- Two-Dimensional Flood Plain Flow. I: Model Description, 818
- Use of GA to Determine Areas of Accretion to Semi-confined Aquifer, 737
- Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400
- Nutrients**
- A Natural Approach, 1526
- SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441
- Object-oriented languages**
- Decision Support System for Surface Water Planning in River Basins, 1366
- Improving Design Coordination for Building Projects. II: A Collaborative System, 250
- Observation wells**
- Identifying Effective Distance to a Recharge Boundary, 732

Occupational safety

- Technological Intervention to Eliminate Back Injury Risks for Nailing, 240

Ocean waves

- Coastal Engineering 2000, 1570
- Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399
- Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
- Oil Containment by Boom in Waves and Wind. II: Waves, 1405
- Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406

Offshore pipeline

- Prediction of Lee-Wake Scouring of Pipelines in Currents, 1391

Offshore structures

- Runup on Columns in Steep, Deep Water Regular Waves, 1383

Ohio

- Out of the Way, 1498
- Rule-Based Model for Traffic Accident Visualization and Analysis, 187

Oil pipelines

- Experimental Investigations of Oxygenated Gasoline Dissolution, 455

Oil spills

- Oil Spill Remediation Using Magnetic Separation, 484

Oils

- Effects of Operating Parameters in Tubular Ultrafiltration, 465
- Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
- Oil Containment by Boom in Waves and Wind. II: Waves, 1405
- Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406
- Operation of Full-Scale Oily Wastewater Treatment System, 1451
- Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

Open channel flow

- Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322
- Channel Routing in Open-Channel Flows with Surges, 679
- Choked Flows through Short Contractions, 728
- Efficient, Robust Design Tool for Open-Channel Flow, 675
- Experiments on Flow at a 90° Open-Channel Junction, 700
- Mean Flow and Turbulence Structure of Open-Channel Flow through Non-Emergent Vegetation, 704
- Role of Bed Discordance at Asymmetrical River Confluences, 701
- Spatially Averaged Open-Channel Flow over Rough Bed, 680
- Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

SUBJECT INDEX

Oregon

- Two-Phase Flow Analysis of Concentration Profiles, 739
- Wavelet Transform Analysis of Open Channel Wake Flows, 285
- Open channels**
 - Grass-Lined Channels, 690
 - Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332
 - Mean Flow and Turbulence in Open-Channel Bend, 746
 - Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698
 - Robust Flow Control of Single Input Multiple Outputs Regulated Rivers, 894
 - Sample Size Determination in Open Channel Inverse Problems, 731
 - Simple Curvilinear Method for Numerical Models of Open Channels, 757
 - Wavelet Transform Analysis of Open Channel Wake Flows, 285
- Openings**
 - Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075
- Optimization**
 - Automated Least Squares Adjustment of Triangulation-Trilateration Figures, 1252
 - Collaborative Multidisciplinary Design Optimization, 924
 - Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183
 - Cost Optimization in Projects with Repetitive Nonserial Activities, 232
 - Design of Sewer Line, 526
 - Engineered Levee Breaches for Flood Mitigation, 711
 - Evaluating Reliability of TRANSYT-7F Optimization Schemes, 1295
 - Evolution for Formal Maintainability Program for Large Manufacturing Company, 1036
 - Finite-Element Model Updating for the Kap Shui Mun Cable-Stayed Bridge, 90
 - Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023
 - Fuzzy Multistage Optimization of Large-Scale Trusses, 1225
 - Genetic Algorithm Approach for Transit Route Planning and Design, 1278
 - Global Search Method for Locating General Slip Surface using Monte Carlo Techniques, 634
 - Hydraulic Infrastructures Design Using Simulated Annealing, 839
 - Identifying Effective Distance to a Recharge Boundary, 732
 - Identifying Impervious Boundary and Aquifer Parameters from Pump-Test Data, 694
 - An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298
 - Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 597
 - Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 644
 - Macroscopic Optimum System for Management of Pavement Rehabilitation, 1317
 - Maintenance Planning for Deteriorating Concrete Bridges, 3
 - Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110
 - Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111
 - Model for Determining Optimum Bus-Stop Spacing in Urban Areas, 1277
 - Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698
 - Optimal Design of Pumping Mains, 1287
 - Optimal Extraction of Water from Regional Aquifer under Salinization, 1343
 - Optimal Furrow Design. I: Time of Advance Equation, 883
 - Optimal Furrow Design. II: Explicit Calculation of Design Variables, 884
 - Optimal Placement of Multiple Tuned Mass Dampers for Seismic Structures, 1192
 - Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243
 - Optimal Schedule Planning for Multiple, Repetitive Construction Process, 256
 - Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908
 - Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552
 - Optimization of Hollow-Fiber Design and Low-Pressure Membrane System Operation, 489
 - Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415
 - Optimizing Owner/Contractor Core Competencies for Capital Programs, 950
 - Piece-by-Piece Approach to Solving Large Nonlinear Water Resources Management Models, 1374
 - Reliability-Based Optimal Design of Series Structural Systems, 347
 - Reliability-Based Optimization Considering Manufacturing and Operational Uncertainties, 36
 - Reservoir Release Policy for Large Irrigation System, 897
 - Sensitivity of Optimal Groundwater Remediation Designs to Residual Water Quality Violations, 1369
 - Sensitivity of Optimum Designs for Spatially Varying Ground Motions, 1223
 - Shotcrete for Underground Support VIII, 1604
 - Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267
 - System Reliability-Based Configuration Optimization of Trusses, 1180
 - Value Engineering and Optimal Building Projects, 42
- Optimization models**
 - Identification of Contaminant Source Location and Release History in Aquifers, 799
 - A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349
 - Optimal Identification of Ground-Water Pollution Sources and Parameter Estimation, 1338
 - Optimizing Resource Utilization for Repetitive Construction Projects, 212
- Oregon**
 - Cliff-Hanger, 1481

Modeling Klamath River System Operations for Quantity and Quality, 1367

Waste-Load Allocation Using Genetic Algorithms, 1348

Organic carbon

Evaluation of Drinking Water Biostability Using Biofilm Methods, 479

Organic chemicals

Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497

Organic compounds

Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pt/Al_2O_3 Catalyst, 483

Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472

Effects of Organic Cation Structure on Behavior of Organobentonites, 603

Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540

Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Organic loads

Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511

Review of Two Decades of Experience with TF/SC Process, 476

Organic matter

Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568

Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9

Organization theory

Corporate Governance and Role of CEO in Engineering Companies, 943

Effect of Interorganizational Teamwork on Project Outcome, 945

Organizations

Evolution, Not Revolution, 959

Strategic Management in Engineering Organizations, 948

Orientation

An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298

Oscillators

Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405

Oscillatory flow

Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702

Leak Detection in Pipes by Frequency Response Method, 681

Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395

Sediment Transport and Backfilling of Trenches in Oscillatory Flow, 1411

Outfall sewers

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Outflows

Calculation of Inflow and Outflow in Phreatic Aquifers, 856

Overconsolidated clays

Bridge Foundations for Hightstown Bypass, 662

Vertical Yield Stress of Pisa Clay from Piezocone Tests, 652

Overflow

Nature and Dynamics of Water Sediment Interface in Combined Sewers, 458

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Overland flow

Parameter Identifiability for Three Sediment Entrainment Equations, 868

Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673

Overloads

Distress of RC Structure due to Poor Quality Control and Overloading, 1033

Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215

Overpasses

Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090

Owners

Optimizing Owner/Contractor Core Competencies for Capital Programs, 950

Oxidation

Numerical Model for Biological Oxidation and Migration of Methane in Soils, 1464

Pilot-Scale Evaluation of H_2O_2 Injection to Control NO_x Emissions, 471

Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

Oxygen

Oxygen Transfer at Low Drop Weirs, 504

Oxygen demand

Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528

Oxygen transfer

Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445

Oxygenation

Experimental Investigations of Oxygenated Gasoline Dissolution, 455

Field Experiments to Determine Gas Transfer at Gated Sills, 747

Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445

Ozone

Effect of Temperature on Ozone Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 486

SUBJECT INDEX

- Mass Transfer of Ozone in Semibatch Stirred Reactor, 565
- Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497
- Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493
- Ozonization**
- Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543
- Painting**
- Quality Control Parameters for Robotic Bridge Painting, 227
- Pakistan**
- Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semi-arid Areas, 900
- Panels**
- Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Failure Study of an Aluminum Bridge Deck Panel, 1039
- Seismic Energy Dissipators for RC Panels: Analytical Studies, 374
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154
- Parallel processing**
- Partitioning of Tall Buildings using Bubble Graph Representation, 193
- Parameters**
- Confined Aquifer Parameters from Temporal Derivative of Drawdowns, 710
- Evolutionary Programming for Inverse Problems in Civil Engineering, 189
- Field Applications of a Variable-Parameter Muskingum Method, 796
- Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619
- Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709
- Parameter Identifiability for Three Sediment Entrainment Equations, 868
- Quality Control Parameters for Robotic Bridge Painting, 227
- Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829
- Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382
- Section Removal of Sediment from between Armor Blocks, 696
- Parametric hydrology**
- New Parameters for Solution of Two-Well Dispersion Problem, 793
- Parking**
- Transportation Engineering Basics, 1616
- Parking facilities**
- Design Live Loads for Passenger Cars Parking Garages, 1104
- Evaluation of the Trevipark Automated Parking System, 1582

Pavement condition

- How Park-and-Ride Schemes Can Be Successful in Eastern Asia, 1328
- Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046
- Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355
- Parking Facilities in Urban Areas: Air and Noise Impacts, 1325
- Towering Achievement, 1548
- Parks**
- Cost-Effective Landfill Closure: Boston's "Menino Project", 1444
- Particle size**
- Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432
- Effect of Soil-Particle Size Contrast on Capillary Barrier Performance, 650
- Method for Estimating Size-Specific Particulate Emission Inventories, 571
- Unsaturated Particulate Materials—Particle-Level Studies, 579
- Particles**
- Cr(VI) Adsorption onto Hydrous Concrete Particles from Groundwater, 569
- Effect of Particle Shape on Fall Velocity of Angular Particles, 748
- Fabric Evolution of Ellipsoidal Arrays with Different Particle Shapes, 394
- Granular Dynamics Simulations of Heap Formation: The Effects of Feed Rate on Segregation Patterns in a Binary Granular Heap, 395
- Material Flow Analyses of Noncircular-Shaped Granular Media using Discrete Element Methods, 397
- Modeling Nonspherical Particles Using Multisphere Discrete Elements, 391
- Time-Dependent Particle Transport through Granular Filters, 618
- Particulate media**
- Stochastic Model for Time-Dependent Compression of Particulate Media, 339
- Unsaturated Particulate Materials—Particle-Level Studies, 579
- Partnerships**
- Effective Partnering in Innovative Procured Multicultural Project, 942
- From Competitors to Partners, 1500
- Infrastructure of Partnering for Construction, 966
- Making Watershed Partnerships Work: A Review of the Empirical Literature, 1376
- New Project Procurement Process, 962
- Partnering in Construction: Improvement through Integration and Collaboration, 928
- Procurement Protocols for Public-Private Partnered Projects, 252
- Pathogens**
- Class A Pathogen Reduction in the SSDML Process, 1446
- Pathogen and Pathogen Indicator Removal Characteristics in Treatment of Wetland Systems, 1457
- Pavement condition**
- Comparison of Two Pavement Rehabilitation Strategies, 1259

Pavement condition

- Current and Future Pavement Maintenance Prioritization Based on Rapid Visual Condition Evaluation, 1268
- General Approach to Payment Adjustments for Flexible Pavements, 1258
- Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286
- Numerical Methodology in Fatigue Analysis: Applications, 1260
- Optimal Work Zone Lengths for Four-Lane Highways, 1269
- Performance of Geosynthetic-Reinforced Asphalt Pavements, 587
- Pavement deflections**
- Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262
- Pavement Design in Taklimakan Desert, 1267
- Pavement design**
- Pavement Design in Taklimakan Desert, 1267
- Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261
- Resilient Response of Recycled Concrete Road Aggregates, 1311
- Pavement management**
- Estimation of Rutting Models by Combining Data from Different Sources, 1303
- Macroscopic Optimum System for Management of Pavement Rehabilitation, 1317
- Pavement markings**
- Summary of Evaluation Findings for 30-Meter Handheld and Mobile Pavement Marking Retroreflectometers, 1614
- Pavements**
- Advanced Airfield Pavements, 1565
- Application of a Neural Network Model to Forecast Short-Term Pavement Crack Condition: Florida Case Study, 853
- Computer Model for Life-Cycle Cost Analysis of Roadway Pavements, 190
- Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313
- Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292
- LTPP Data: Making Something of It: Papers from the International Contest on LTPP Data Analysis 1998-1999, 1595
- Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007
- Quality of Pavement Construction in Saudi Arabia, 1475
- Payment**
- General Approach to Payment Adjustments for Flexible Pavements, 1258
- PCB**
- Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563
- PCE**
- Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568
- Photolysis of TCA, TCE, and PCE in Flow-Through Reactor System, 506

2001 ASCE TRANSACTIONS

PCP

- Photolysis of TCA, TCE, and PCE in Flow-Through Reactor System, 506

Peak flow

- Estimating Equation for Mixed Populations of Floods in Massachusetts, 779
- Modeling Looped Ratings in Muskingum-Cunge Routing, 787

Peak hour traffic

- Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281

Pedestrian traffic flow

- Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324

Pedestrians

- London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104

Peer review

- Peer Review to Enhance State Transportation Research Program, 918

Pendulums

- Nonlinear Dynamics of Harmonically Excited Inelastic Inverted Pendulum, 284

Penetration resistance

- Assessing Frost Resistance of Concrete Aggregates in Minnesota, 139
- Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607
- Enhancing Water Resistance of Cement and Gypsum-Cement Materials, 1013

Penetration tests

- Effects of Construction on Laterally Loaded Pile Groups, 605
- Piezoelectric Penetration Testing in Atlantic Piedmont Residuum, 575

Pennsylvania

- Dam within a Dam, 1555
- Load Rating of Masonry Arch Bridges, 64

Penstocks

- Case Study: Lapino Powerplant Penstock Failure, 717

People movers

- Airport on the Move, 1541
- Moving Through the Millennium: Automated People Movers VIII, 1598

Performance

- Performance Investigation of Concrete Manhole Inlets, 1478
- Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300

Performance characteristics

- Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986

Performance evaluation

- Alignment during Preproject Planning, 949
- Assessment of Existing Structures—Approaches and Research Needs, 1119
- Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193
- Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494

SUBJECT INDEX

- Contour Dust Shield Performance, 34
Customer Satisfaction in Home Building, 220
Defining Cost/Schedule Performance Indices and Their Ranges for Design Projects, 954
Estimating Technical and Scale Inefficiencies of Public Transit Systems, 1276
Evaluation of Roundabout Performance Using SIDRA, 1271
Guidelines for Instrumentation and Measurements for Monitoring Dam Performance, 1590
Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858
LTPP Data: Making Something of It: Papers from the International Contest on LTPP Data Analysis 1998-1999, 1595
Model-Predicted Groundwater Circulation Well Performance, 1462
Performance and Leaching Assessment of Flowable Slurry, 474
Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032
Performance of Segmental and Posttensioned Bridges in Europe, 118
Reliability of Timber Fender Systems in Waterfront Facilities, 1099
Structural Steel Selection Considerations: A Guide for Students, Educators, Designers, and Builders, 1613
- Performance standards**
Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Permafrost**
Behavior of the Working Fluid in Mechanized Support in Permafrost, 138
- Permeability**
Determining Fault Permeability from Subsurface Barometric Pressure, 643
Role of Air Pressure in Drying of Weakly Permeable Materials, 344
Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798
- Personnel management**
Collective Excellence: Building Effective Teams, 1572
Finding Your Way through Life, 917
Innovations and Best Practices: Leadership Development and Retention, 912
Innovative Benefits in a Small Consulting Firm, 911
One Company's Approach to the Recruitment and Retention of Engineers, 915
Questions and Answers for Managers, 937
Retention of Nontraditional Engineering and Construction Professionals, 946
Small Business Report: The Home Advantage, 1506
Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913
Structural Engineering for Attaining and Maintaining a Diverse Workforce, 940
Understanding Psychological Type to Improve Project Team Performance, 944
Using the Power of Diversity to Retain Staff: Developing Tools to Ensure Success, 909
- Perturbation**
Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382

Phosphorus

- Peru**
Machu Picchu: A Civil Engineering Marvel, 1596
Rediscovering the Lost City, 1480
Socioeconomic Reverberations of Earthquake Prediction: Snapshot in Time, Peru 1979-1981, 1433
- Pesticides**
Degradation and Migration of Vinclozolin in Sand and Soil, 549
Exposure to Pesticides by Medium and Route: The 90th Percentile and Related Uncertainties, 537
- Petrochemicals**
Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pt/Al_2O_3 Catalyst, 483
- Petrographic analysis**
Under the Microscope, 1520
- Petroleum**
Attenuation of Petroleum Hydrocarbons in Smear Zones: A Case Study, 508
Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446
Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564
Predictions of Bioremediability and Actual Results: Soils with Petroleum Hydrocarbons, 1449
- Petroleum refining**
Identifying Hurricane-Induced Hazardous Material Release Scenarios in a Petroleum Refinery, 1440
- pH**
Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453
Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451
Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433
Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459
- Phenol**
Competitive Adsorption of Phenolic Compounds onto Activated Carbon Fibers in Fixed Bed, 519
Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435
Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444
- Philippine Islands**
Can This Town Survive? Case Study of a Buried Philippine Town, 1428
Redesigning the San Roque Dam, 1502
- Phosphate**
Anoxic Biological Phosphorus Uptake/Release with High/Low Intracellular Polymers, 534
- Phosphorus**
Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468
Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567
Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443
SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441

Phosphorus

SBR System for Phosphorus Removal: Linear Model Based Optimization, 442

Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461

Phosphorus compounds

Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

Photogrammetry

Monitoring River Channel and Fluvial Surfaces with Digital Photogrammetry, 749

Photovoltaic effect

Silicon PV Cell Production on the Moon, 26

Physical properties

Effect of Treatments on Pore Network of Granites, 989

Phytoplankton

Evaluation of Laser In Situ Scattering Instrument for Measuring Concentration of Phytoplankton, Purple Sulfur Bacteria, and Suspended Inorganic Sediments in Lakes, 558

Piers

Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153

Flume Tests for Scour in Clay at Circular Piers, 759

Riprap Protection at Bridge Piers, 706

The Transportation Connection, 1561

Wave Energy and Direction Observed Near Pier, 1380

Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

Pile bearing capacities

Drivability of Glass FRP Composite Piling, 149

Pile caps

Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588

Pile driving

Driveability of FRP Composite Piling, 586

Ground Response during Pile Driving, 656

Prediction of Ground Movements due to Pile Driving in Clay, 576

Pile foundations

Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69

Piled Raft Foundation Design, 572

Pile groups

Application of Periodic Boundary for Large Pile Group, 651

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Dynamic Experiments and Analyses of a Pile-Group-Supported Structure, 624

Piled Raft Foundation Design, 572

Reliability of Axially Loaded Driven Pile Groups, 667

Ultimate Lateral Resistance of Pile Groups in Sand, 614

Pile lateral loads

Effects of Construction on Laterally Loaded Pile Groups, 605

Piles

Base Resistance of Jacked Pipe Piles in Sand, 613

2001 ASCE TRANSACTIONS

Effects of Construction on Laterally Loaded Pile Groups, 605

Monotonic Lateral Loading of Piles in Calcareous Sand, 601

Pseudostatic Approach for Seismic Analysis of Single Piles, 638

Scour around Pile in Combined Waves and Current, 705

Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122

Three-Dimensional Analysis of Performance of Laterally Loaded Sleeved Piles in Sloping Ground, 616

Pipe design

Optimal Design of Pumping Mains, 1287

Pipe flow

Optimal Design of Pumping Mains, 1287

Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714

Pipe lining

Long-Term Buckling Performance of HDPE Liners, 991

Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848

Pipe networks

Unsteady-State Inverse Chlorine Modeling in Pipe Networks, 730

Water Distribution Network Renewal Planning, 175

Pipeline design

Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600

Standard Construction Guidelines for Microtunneling, 1607

Pipelines

Excavation of Surface Installed Pipeline, 849

Hydraulic Design Example—Canal and Pipeline Inlet, 767

Optimal Design of Pumping Mains, 1287

Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600

Practical Method to Prevent Liquid-Column Separation, 724

Predicting Drag Coefficient of Pneumatic Capsule, 1304

Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263

Pipes

Base Resistance of Jacked Pipe Piles in Sand, 613

Influence of Porosity on Piping Models of Levee Failure, 669

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Standard Construction Guidelines for Microtunneling, 1607

Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Unsteady Friction in Rough Pipes, 723

SUBJECT INDEX

Piping systems

Leak Detection in Pipes by Frequency Response Method, 681

Planning

Impact of Rainfall on the Productivity of Highway Construction, 225

MSRP: Model for Station Rehabilitation Planning, 842

Planning for Civil Engineering Applications of Information Technology, 952

Plastic analysis

Plastic Frame Analysis under Fire Conditions, 1105

Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal Leg Tension, 1143

Plastic deformation

Ultimate Behavior of Bolted T-Stub. I: Theoretical Model, 1151

Ultimate Behavior of Bolted T-Stub. II: Model Validation, 1152

Plastic hinges

Energy-Based Methodology for Ductile Design of Concrete Columns, 1229

Plastic Hinge Analysis, 1196

Plastic properties

Design of Cold-formed Channels Subjected to Web Crippling, 1201

Localization Properties of Generalized Drucker-Prager Elastoplasticity, 348

Numerical Method for Lower-Bound Solution of the Rigid-Plastic Limit Analysis Problem, 404

Plasticity

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Hysteretic Systems with Internal Variables, 380

Plasticity Model for Concrete under Triaxial Compression, 310

Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215

Plasticity Model for Sand under Small and Large Cyclic Strains, 660

Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365

Plastics

Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163

Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439

Plate girders

Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123

Plates

Adaptive FE Analysis of RC Shells. II: Applications, 419

Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369

Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306

Bending Solutions of Axisymmetric Levinson Plates in Terms of Corresponding Kirchhoff Solutions, 428

Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144

Buckling of Skew Plates with Continuity or Rotational Edge Restraint, 28

Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981

Effects of Random Material Properties on Buckling of Composite Plates, 378

Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409

Generalized Bending of Shear-Deformable Plate with Elastic Inclusion, 384

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Interface Shear Stress: A New Design Criterion for Plate Debonding, 147

Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100

New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203

Response of RC T-Beams Strengthened for Flexure with Staggered CFRP Plates, 164

Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114

Strengthening of a Steel Bridge Girder Using CFRP Plates, 114

Stress and Displacement around Elastic Artificial Rectangular Hole, 379

Ultimate Response of RC Beams Strengthened with CFRP Plates, 156

Plumes

3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Performance of Tee Diffusers in Shallow Water with Crossflow, 674

Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775

Poland

Case Study: Lapino Powerplant Penstock Failure, 717

Policies

Civil Engineers and Future Environmental Policies, 1062

Political factors

Discretion without Accountability: Politics, Flood Damage, and Climate, 1436

Pollutants

Approach to Steady State in Completely Mixed Flow Reactors, 431

External Costs of Air Emissions from Transportation, 836

Longitudinal Dispersion Coefficient in Straight Rivers, 754

Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743

Predicting River Travel Time from Hydraulic Characteristics, 753

Pollution control

Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Pollution control

Pollution sources

Pollution sources

Identification of Contaminant Source Location and Release History in Aquifers, 799

Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379

Polyethylene

Excavation of Surface Installed Pipeline, 849

Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543

Long-Term Buckling Performance of HDPE Liners, 991

Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620

Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439

Polymers

Anoxic Biological Phosphorus Uptake/Release with High/Low Intracellular Polymers, 534

Composites in Construction: A Reality, 1573

Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447

Recycled Polymers for Use as Bitumen Modifiers, 1008

Spatial Distribution of Extracellular Polymeric Substances in Biofilms, 536

Ponds

Infiltration Pond Design for Highway Runoff Treatment in Semiarid Climates, 557

Pore pressure

Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594

Stresses and Deformation of Buried Pipeline under Wave Loading, 1305

Pore size distribution

New General Pore Size Distribution Model by Classical Thermodynamics, Application: Activated Carbon, 464

Quantifying Void Ratio in Granular Materials using Voronoi Tessellation, 199

Pore water pressure

Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381

Ground Response during Pile Driving, 656

Piezocene Penetration Testing in Atlantic Piedmont Residuum, 575

Poroelectricity

Time-Dependent Poromechanical Responses of Saturated Cylinders, 325

Porosity

Curing/Environment Effect on Pore Structure of Blended Cement Concrete, 1017

Effect of Treatments on Pore Network of Granites, 989

Stochastic Model for Time-Dependent Compression of Particulate Media, 339

Studies on Several Factors Affecting Hydration and Properties of Lime-Pozzolan Cements, 1025

Porous materials

Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425

2001 ASCE TRANSACTIONS

Role of Air Pressure in Drying of Weakly Permeable Materials, 344

Porous media

Analytical Study of Porous Wave Absorber, 316

General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813

Implementation of Porous Media Formulation for Geomaterials, 296

Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775

Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798

Porous media flow

Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381

Portland cements

Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements, 996

Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316

Ports

Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205

Delivery Approach for Coastal Infrastructure Facilities: Case of the Transshipment Seaport of Sidon, 845

New Navigation Channel, 1560

Ports '01, 1601

Twenty-First Century Terminal, 1558

Post tensioning

Performance of Segmental and Posttensioned Bridges in Europe, 118

Posttensioned Seismic-Resistant Connections for Steel Frames, 1084

Postbuckling

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368

Potable water

Evaluation of Drinking Water Biostability Using Biofilm Methods, 479

Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862

Predicting the Formation of Chlorinated and Brominated By-Products, 490

Returning to the Source, 1510

Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463

Potassium

Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472

Potomac River

Beltway Connection, 1495

SUBJECT INDEX

Power supplies

Space Solar Power: A Major New Energy Option?, 20

Precipitation

Evapotranspiration Intensifies over the Conterminous United States, 1373

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454

Precipitative Removal of Fluoride from Electronics Wastewater, 542

Training Artificial Neural Networks to Perform Rain-fall Disaggregation, 776

Precipitation, antecedent

Normalized Antecedent Precipitation Index, 816

Predictions

Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494

Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31

Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231

Predicting Drag Coefficient of Pneumatic Capsule, 1304

Predicting Leakage through Composite Landfill Liners, 617

Predicting River Travel Time from Hydraulic Characteristics, 753

Predicting the Formation of Chlorinated and Brominated By-Products, 490

Prediction and Measurement of Bubble Formation in Water Treatment, 551

Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473

Predictions of Biodegradability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166

Structural Equation Model of Construction Contract Dispute Potential, 12

Vehicle Dynamics Model for Predicting Maximum Truck Acceleration Levels, 1307

Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400

Prefabrication

Just-in-Time Management of Precast Concrete Components, 270

Preliminary design

Preliminary Design of the Prestressed Concrete Stress Ribbon Bridge, 83

Preliminary Design System for Concrete Box Girder Bridges, 194

Preloading

Effects of Preloading on Brittle Solids, 279

Preservation

Ancient Chinese Timber Architecture. I: Experimental Study, 1226

Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Probabilistic models

Pressures

Cavitation Prevention with Roughened Surface, 750

Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399

Determining Fault Permeability from Subsurface Barometric Pressure, 643

Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403

Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78

Finite-Element Modeling of Filling Pressures in a Full-Scale Silo, 402

Prestressing

Absorption of Aramid Prestressing Rods in Aggressive Solutions, 171

Alternative Layout for the Prestressing of Slab Bridges, 94

Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194

Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346

Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166

Realistic Long-Term Prediction of Prestress Forces in PSC Box Girder Bridges, 1198

Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118

Tensile Behavior of FRP Tendons for Prestressed Ground Anchors, 152

Pricing

Commodities and Value Based Pricing of Engineering Services, 965

Human Effects in Construction Contract Price Forecasting: Experience and Experiential Learning Styles, 269

A Methodology for Determining Price Variation in Project Execution, 254

Role of Marketing Intelligence in Making Pricing Policy in Construction, 956

Private sector

Hong Kong Experience in Managing BOT Projects, 229

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

Procurement Protocols for Public-Private Partnered Projects, 252

Strategic Management in Engineering Organizations, 948

Privatization

Unraveling of BOT Scheme: Malaysia's Indah Water Consortium, 265

Probabilistic methods

Exposure to Pesticides by Medium and Route: The 90th Percentile and Related Uncertainties, 537

Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096

Statistical Analyses of Strength of Slender RC Columns, 1071

Probabilistic models

Probabilistic Framework for Liquefaction Potential by Shear Wave Velocity, 632

Probabilistic models

Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372

Probabilistic Models of Damaging Deflections for Floor Elements, 1048

Probabilistic Seismic Demand Model for California Highway Bridges, 109

Probability

Development of Exceedance Probability Streamflow Forecast, 773

Fragility Analysis of Concrete Gravity Dams, 840

Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050

Probability distribution

Assessment of an L-Kurtosis-Based Criterion for Quantile Estimation, 806

Evaluation of Mixed-Population Flood-Frequency Analysis, 778

Finite Fourier Probability Distribution and Applications, 826

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. I: Model Development, 559

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. II: Extensions and Applications, 560

Simulation of Highly Skewed Non-Gaussian Stochastic Processes, 427

Problem solving

A Model for Understanding, Preventing, and Resolving Project Disputes, 237

Process control

SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441

Productivity

Estimating Labor Production Rates for Industrial Construction Activities, 271

Impact of Rainfall on the Productivity of Highway Construction, 225

Sensitivity Analysis of Neural Networks in Spool Fabrication Productivity Studies, 208

Professional development

Effectiveness of the MCAA's Project Management Course, 1065

The Inherent Personality of Women as an Asset to the Engineering Workplace, 932

Innovations and Best Practices: Leadership Development and Retention, 912

Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering, and Technology, 930

Mentors and Role Models: Are They Important?, 934

A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910

Retention of Nontraditional Engineering and Construction Professionals, 946

Professional practice

Civil Engineering Practice in the Twenty-First Century: Knowledge and Skills for Design and Management, 1568

Engineering Your Future, 1579

Environmental Engineering in Mexico, 1056

2001 ASCE TRANSACTIONS

Professional role

Corporate Governance and Role of CEO in Engineering Companies, 943

Engineering, Leadership, and Integral Philosophy, 1052

Progressive failure

Constitutive Behavior of Geosynthetic Interfaces, 645

Effects of Preloading on Brittle Solids, 279

Progressive Failure of Lined Waste Impoundments, 646

Progressive waves

Wave Scour around a Large Vertical Circular Cylinder, 1393

Project evaluation

Design and Build Project Success Factors: Multivariate Analysis, 221

A Methodology for Determining Price Variation in Project Execution, 254

Project management

The AEC Dilemma—Exploring the Barriers to Change, 919

Alignment during Preproject Planning, 949

Application of TQM to Environmental Construction, 960

Approaches for Making Risk-Based GO/NO-GO Decision for International Projects, 246

Benefits of Constructability on Construction Projects, 244

Building Project Scope Definition Using Project Definition Rating Index, 51

Cognizance of Visual Design Management in Life-Cycle Project Management, 947

Collective Excellence: Building Effective Teams, 1572

Comparison of Linear Scheduling Method (LSM) and Critical Path Method (CPM), 255

Comparison of Two Maintainability Programs, 239

Construction Coordination Activities: What is Important and What Consumes Time, 963

Construction Delay Computation Method, 217

Cost Optimization in Projects with Repetitive Nonserial Activities, 232

Defining Cost/Schedule Performance Indices and Their Ranges for Design Projects, 954

Design and Build Project Success Factors: Multivariate Analysis, 221

Developing a Draft Schedule Using Templates and Rules, 257

Dynamic Planning for Fast-Tracking Building Construction Projects, 264

Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953

Effect of Interorganizational Teamwork on Project Outcome, 945

Effective Partnering in Innovative Procured Multicultural Project, 942

Effectiveness of the MCAA's Project Management Course, 1065

The Emerging Role of Project Management, 922

Hong Kong Experience in Managing BOT Projects, 229

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

SUBJECT INDEX

Punching

Improving Design Coordination for Building Projects.
I: Information Model, 249
Improving Design Coordination for Building Projects.
II: A Collaborative System, 250
Infrastructure of Partnering for Construction, 966
Knowledge-Based Approach to Construction Project
Risk Management, 192
Megaproject Management, 1559
A Model for Understanding, Preventing, and Resolving
Project Disputes, 237
New Project Procurement Process, 962
Object-Oriented Model for Repetitive Construction
Scheduling, 234
Optimal Schedule Planning for Multiple, Repetitive
Construction Process, 256
Optimizing Owner/Contractor Core Competencies for
Capital Programs, 950
Probabilistic Optimal-Cost Scheduling, 262
Project Change Management System, 958
Project Management in Construction: Software Use
and Research Directions, 222
Project-Specific Web Sites: Friend or Foe?, 259
Small Firms, Big Dig, 1515
Time-Overrun Factors in Nigerian Construction Indus-
try, 261
Understanding Project Site Conditions, 1468
Understanding Psychological Type to Improve Project
Team Performance, 944
VIRCON: Interactive System for Teaching Construc-
tion Management, 218
Visualizing System-Wide Economic Impacts of Trans-
portation Projects, 1334
Web-Based Decision Support Systems: Case Study in
Project Delivery, 202
Web-Centric Framework for Secure and Legally Bind-
ing Electronic Transactions in Large-Scale A/E/C
Projects, 201
Work-Time Model for Engineers, 230
Project planning
Alignment during Preproject Planning, 949
Community Service Project Planning for ASCE Stu-
dent Chapters/Clubs, 1066
Genetic Algorithm for Selecting and Scheduling Inter-
dependent Projects, 1385
Resource Scheduling Using Neural Dynamics Model
of Adeli and Park, 213
Project selection
Improving Objectivity in Procurement Selection, 955
Projects
Structural Equation Model of Construction Contract
Dispute Potential, 12
Propellants
Silicon PV Cell Production on the Moon, 26
Proportioning
Proportioning of Earthquake-Resistant RC Building
Structures, 1088
Protective coatings
Contour Dust Shield Performance, 34
Effect of Bars Properties on Bond Strength of Galva-
nized Reinforcement, 1027
Quality Control Parameters for Robotic Bridge Paint-
ing, 227

Protocols

Determining Urban Storm Water BMP Effectiveness,
1350

Pseudodynamic method

Pseudoforce Method for Nonlinear Analysis and
Reanalysis of Structural Systems, 1138

Public health

Medical and Public Health Consequences of Natural
and Biological Disasters, 1435

Public information programs

Safe in the 'Hood: Earthquake Preparedness in Midci-
ty Los Angeles, 1421

Public land

Cost-Effective Landfill Closure: Boston's "Menino
Project", 1444

Public participation

Community Emergency Response Training (CERTs):
A Recent History and Review, 1426

Who Is to Blame for the Failures of Sustainable Recon-
struction Projects?, 1425

Public policy

Effects of Fuel Price Increase in Nigeria on Travel
Expenditures, 1274

Engineering, Leadership, and Integral Philosophy,
1052

Measuring Affordability in Public Housing from Eco-
nomic Principles: Case Study of Hong Kong, 1326

Public safety

Flow over a "Killer" Weir Design Project, 766

Public transportation

Estimating Technical and Scale Inefficiencies of Public
Transit Systems, 1276

How Park-and-Ride Schemes Can Be Successful in
Eastern Asia, 1328

Moving Through the Millennium: Automated People
Movers VIII, 1598

Public works

CITYWORK: Application of Collaborative Technolo-
gies for Infrastructure Management, 181

Publications

Initiative to Strengthen Publications by Young Faculty,
1060

The Power of the Press Release, 1485

Pump intakes

Experimental Study of 3D Pump-Intake Flows with
and without Cross Flow, 745

Pumping

Identifying Effective Distance to a Recharge Boundary,
732

Optimal Design of Pumping Mains, 1287

Optimal Extraction of Water from Regional Aquifer
under Salinization, 1343

Pumping tests, wells

Identifying Impervious Boundary and Aquifer Param-
eters from Pump-Test Data, 694

Punching

Ice Rubble Behavior in Punch Tests, 136

Punching Shear Strength of Simply Supported Ferroc-
ment Slabs, 1022

Pyrite

Pyrite

Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

Pyrolysis

Study of Sewage Sludge Pyrolysis Mechanism and Mathematical Modeling, 502

Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439

Qualifications

Quantification of Uncertainty in Structural Dynamic Models, 35

Quality control

Application of TQM to Environmental Construction, 960

Building Energy Management as a Continuous Quality Control Process, 49

Differential GPS Geometric Rectification of Fine-Resolution Aircraft Scanner Data, 1246

Distress of RC Structure due to Poor Quality Control and Overloading, 1033

Engineering Your Future, 1579

Quality Control Parameters for Robotic Bridge Painting, 227

Quantitative analysis

Hydrologic Assessment of Water Losses in River, 1336

Racial factors

Diversity Is Smart Business for True Success, 936

Radar

Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804

Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292

Radar Testing of a Masonry Composite Structure with Sand and Water Backfill, 87

Radioactive wastes

Aerial Radiation Survey at Military Range, 1448

Radioisotopes

Aerial Radiation Survey at Military Range, 1448

Raft foundations

Investigation of Design Alternatives for a Piled Raft Case History, 629

Piled Raft Foundation Design, 572

Rail transportation

Transporting Hong Kong, 1490

Railroad stations

Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297

Rain gages

New Perspective on Rainfall Frequency Curves, 782

New Weighing Mechanism for Precipitation Gauges, 780

Rain Catch under Wind and Vegetal Cover Effects, 774

Rain water

Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865

Rainfall

Climatological Thresholds of Daily Rainfall, 824

Coming to the Surface, 1549

Determination of Component of Ground-Water Flow from Rainfall Data, 801

Disaggregation of Daily Rainfall for Continuous Watershed Modeling, 808

GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832

Impact of Rainfall on the Productivity of Highway Construction, 225

Integrated Physically Based Rainfall-Runoff Model using FEM, 794

Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803

Multiquadric Equations and Optimal Areal Rainfall Estimation, 830

Normalized Antecedent Precipitation Index, 816

Rain-on-Snow Surcharge for Roof Design, 1078

Regional Alfalfa Yield, ET_0 , and Water Value in Western States, 874

Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792

Training Artificial Neural Networks to Perform Rainfall Disaggregation, 776

Turbulence Intensities of Shallow Rain-Impacted Flow over Rough Bed, 751

Rainfall duration

New Perspective on Rainfall Frequency Curves, 782

Rainfall frequency

New Perspective on Rainfall Frequency Curves, 782

Rainfall intensity

New Perspective on Rainfall Frequency Curves, 782

Rain Catch under Wind and Vegetal Cover Effects, 774

Rainfall-runoff relationships

Derivation of Pareto Front with Genetic Algorithm and Neural Network, 777

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

Ramps

Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043

Steel Single Box Ramp Bridges, 85

Random processes

Minimum Building Lifecycle Costs: Design Criteria. I: Methodology, 1110

Random Field Representation in a Biorthogonal Wavelet Basis, 300

Random variables

Random Field Representation in a Biorthogonal Wavelet Basis, 300

Random vibration

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239

Nonstationary Random Critical Excitation for Acceleration Response, 340

Random waves

Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

SUBJECT INDEX

Rangeland

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

Rapid transit railways

BOT Financial Model: Taiwan High Speed Rail Case, 236

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

Speeding Across Spain, 1518

Rapid transit systems

Raising the Bar of BART, 1563

Ratings

Quantifying Field-Test Behavior for Rating Steel Girder Bridges, 86

Reactions, mechanics

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

Reaeration

Recalibration of a Reaeration Equation, 469

Real estate properties

Residential Land Development Practices: A Textbook on Development Land Into Finished Lots, 1602

Recharge wells

New Parameters for Solution of Two-Well Dispersion Problem, 793

Recirculation

Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445

Solid Circulation Rate in Recirculating Fluidized Bed, 275

Reclamation

New Engineer Training at Bureau of Reclamation, 762

Reconstruction

Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153

Out of the Way, 1498

Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427

Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425

Recovery planning

Safe in the 'Hood: Earthquake Preparedness in Midcity Los Angeles, 1421

Recruiting

Competitive Forces that Drive Civil Engineer Recruitment and Retention, 923

One Company's Approach to the Recruitment and Retention of Engineers, 915

Recruitment and Retention of Civil Engineers in Departments of Transportation, 911

Recycling

Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274

Behavior of Compacted Soil-Fly Ash-Carbide Lime Mixtures, 640

Chemical Reactions of Glass Cullet Used as Cement Component, 1021

Comparison of Two Pavement Rehabilitation Strategies, 1259

Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292

Physical and Chemical Evaluation of CCBs for Alternative Uses, 276

Recycled Polymers for Use as Bitumen Modifiers, 1008

The Road to Reuse, 1545

Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316

Use of Sewage Sludge Ash as Brick Material, 545

Redevelopment

Use of Belief Function in Brownfield Infrastructure Redevelopment Decision-Making, 1332

Redundancy

Posttensioned Seismic-Resistant Connections for Steel Frames, 1084

Reflection

Volumetric Study of Reflected Glare from Glass Curtain Walls of Buildings, 48

Refraction

Linear Refraction-Diffraction Model for Steep Bathymetry, 1397

Regional planning

Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279

Regression analysis

Estimating Equation for Mixed Populations of Floods in Massachusetts, 779

Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256

Regression models

Regression Model for Back-Calculation of Rigid-Pavement Properties, 1299

Regulations

Changes in Runoff due to Stormwater Management Pond Regulations, 810

Preparing for a Slowdown, 1491

Robust Flow Control of Single Input Multiple Outputs Regulated Rivers, 894

Rehabilitation

Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88

Bridge to the Future, 1554

Comparison of Two Pavement Rehabilitation Strategies, 1259

Dam within a Dam, 1555

Durability of Segmental Concrete Bridges, 115

Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292

Liner Lessons, 1552

Long-Term Buckling Performance of HDPE Liners, 991

Macroscopic Optimum System for Management of Pavement Rehabilitation, 1317

Materials Considerations in FRP Rehabilitation of Concrete Structures, 979

MSRP: Model for Station Rehabilitation Planning, 842

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Rehabilitation

Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600

Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848

Pushing Back, 1523

Rebuilding America's Infrastructure, 1540

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams, 1237

Strengthening of a Steel Bridge Girder Using CFRP Plates, 114

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

A Structural Engineering Odyssey, 1612

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Water Distribution Network Renewal Planning, 175

Reinforcement

Bounding Surface Model for Geosynthetic Reinforcements, 390

DVW—Local Reinforcement for Timber Joints, 1174

Effect of Bars Properties on Bond Strength of Galvanized Reinforcement, 1027

Local Collapse in Soft Rock Bank Cavities, 665

Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318

Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166

Reinforcement of Elastic Structures in the Presence of Imperfect Interfacial Bonding, 354

Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

Reinforcing steels

Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972

Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968

Relaxation, mechanics

Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970

Reliability

Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359

Evaluating Reliability of TRANSYT-7F Optimization Schemes, 1295

Evolving Toward Project-Specific Reliability: Are We Sure It's a Good Idea?, 1241

Identifying Impervious Boundary and Aquifer Parameters from Pump-Test Data, 694

Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Reliability of Axially Loaded Driven Pile Groups, 667

Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120

Reliability of Timber Fender Systems in Waterfront Facilities, 1099

Reliability, Risk, and Uncertainty Analysis Using Generic Expectation Functions, 547

Reliability-Based Assessment of Suspension Bridges: Application to the Innoshima Bridge, 103

Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846

Reliability-Based Life-Cycle Management of Highway Bridges, 176

Reliability-Based Optimization Considering Manufacturing and Operational Uncertainties, 36

Sample Size Determination in Open Channel Inverse Problems, 731

Stochastic Field Models for Aircraft Jet Engine Applications, 32

Strategy for Designing Geodetic Network with High Reliability and Geometrical Strength, 1250

Reliability analysis

Effect of Material and Geometry Variations on Beam under Patch Loading, 1178

Fatigue Reliability Analysis of Microwave Antenna Towers due to Wind, 1211

Fatigue Reliability Analysis using Nondestructive Inspection, 1181

Multiple Linearization Method for Nonlinear Reliability Analysis, 414

Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096

Reliability Analysis of Rotorcraft Composite Structures, 33

Seismic Fragility of RC Structural Walls: Displacement Approach, 1097

Relocation

Great Excavations, 1532

Out of the Way, 1498

Remedial action

Can This Town Survive? Case Study of a Buried Philippine Town, 1428

Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472

Groundwater and Soil Remediation: Process Design and Cost Estimating of Proven Technologies, 1586

Groundwater Contamination by Organic Pollutants, 1587

An Improved Real-Coded GA for Groundwater Bioremediation, 198

Improving Structural Response to Permanent Ground Displacement, 1467

Interaction of Soil Air Permeability and Soil Vapor Extraction, 434

Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564

Natural Covers for Landfills and Buried Waste, 525

Oil Spill Remediation Using Magnetic Separation, 484

A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349

Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415

Phytoremediation Potential and Toxicity of Barium to Three Freshwater Microalgae: *Scenedesmus subspicatus*, *Selenastrum capricornutum*, and *Nannochloropsis* sp., 1461

Plant-Enhanced Remediation of Glycol-Based Aircraft Deicing Fluids, 1456

SUBJECT INDEX

Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

Sensitivity of Optimal Groundwater Remediation Designs to Residual Water Quality Violations, 1369

Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Uptake, Selectivity, and Inhibition of Hydroponic Treatment of Contaminants, 491

VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463

Remote sensing

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785

Renewable resources

Use of Landfill Gas for Electricity Generation, 1442

Renovation

The Pentagon Project, 1516

Piece by Piece, 1509

Rental

Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326

Rental Cars Unique Accident Trends, 1275

Repairing

About Debonding of Thin Cement-Based Overlays, 982

Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161

Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154

Construction and Materials Issues 2001, 1575

Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031

Engineered Heat-Straightening Repairs: A Case Study, 66

Evaluation of Bond Properties in Concrete Repair Materials, 980

Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984

Maintenance Planning for Deteriorating Concrete Bridges, 3

Numerical Model for Minimizing the Risk of Damage in a Repair System, 983

Prioritization of Ten Embankment Dams According to Physical Deficiencies, 600

Repair of Corrosion-Damaged Columns with FRP Wraps, 143

Repair of Localized Damage in Steel by Heat Straightening, 1199

Risk Indexing Tool to Assist in Prioritizing Improvements to Embankment Dam Inventories, 599

Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030

Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

A Structural Engineering Odyssey, 1612

Residual stress

Use of Electrodeposition for Repair of Concrete with Shrinkage Cracks, 985

Repeated loads

Resilient Response of Recycled Concrete Road Aggregates, 1311

Replacement

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Research

25 Technologies to Watch, 1537

Assessment of Existing Structures—Approaches and Research Needs, 1119

Determining Urban Storm Water BMP Effectiveness, 1350

Initiative to Strengthen Publications by Young Faculty, 1060

Peer Review to Enhance State Transportation Research Program, 918

Research versus Practice in Transportation Geotechnics: Can We Bridge the Chasm?, 1053

Shoring Up Coastal Engineering, 1496

Research needs

New Results and Research Needs on Sediment Movement in Urban Drainage, 1357

Reservoir operation

Interior-Point Method for Reservoir Operation with Stochastic Inflows, 1341

Multireservoir Modeling with Dynamic Programming and Neural Networks, 1345

Reservoir Release Policy for Large Irrigation System, 897

Reservoir sedimentation

Impact of Turbidity Currents on Reservoir Sedimentation, 670

Reservoirs

Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347

Multivariate Reservoir Inflow Forecasting Using Temporal Neural Networks, 815

Understanding Project Site Conditions, 1468

Residence time

Approach to Steady State in Completely Mixed Flow Reactors, 431

Residential location

Community Emergency Response Training (CERTs): A Recent History and Review, 1426

Residential Land Development Practices: A Textbook on Development Land Into Finished Lots, 1602

Residual soils

Load Tests on Residual Soil and Settlement Prediction on Shallow Foundation, 649

Residual stress

Cracking and Fracture of Suspension Bridge Wire, 127

Driveability of FRP Composite Piling, 586

Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18

Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149

Residual Stresses in Heat-Straightened Steel Members, 969

Resilience

Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007

Resistance

Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements, 996

Base Resistance of Jacked Pipe Piles in Sand, 613

Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631

Resonance

Anisotropic Elastic Constants: Measurement by Impact Resonance, 1014

Resource allocation

Optimizing Resource Utilization for Repetitive Construction Projects, 212

Resource management

Applying Modified Minimum Moment Method to Multiple Resource Leveling, 233

Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243

Simulation as a Tool for Resource Management, 226

Resources

Applying Modified Minimum Moment Method to Multiple Resource Leveling, 233

Response spectra

Inelastic Response Spectra Using Conventional and Pulse R-Factors, 1187

Response Spectrum Superposition for Structures with Uncertain Properties, 303

Restoration

A Natural Approach, 1526

Wetlands Engineering & River Restoration, 1621

Restraint systems

Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57

Retaining walls

Database for Retaining Wall and Ground Movements due to Deep Excavations, 589

Going Against the Grain, 1547

Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636

Seismic Analysis of Segmental Retaining Walls. II: Effects of Facing Details, 637

Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609

Retention

Competitive Forces that Drive Civil Engineer Recruitment and Retention, 923

Innovations and Best Practices: Leadership Development and Retention, 912

Innovative Benefits in a Small Consulting Firm, 914

One Company's Approach to the Recruitment and Retention of Engineers, 915

Recruitment and Retention of Civil Engineers in Departments of Transportation, 911

Using the Power of Diversity to Retain Staff: Developing Tools to Ensure Success, 909

Retrofitting

Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169

Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117

Composites Enhance Timber Bridges, 1538

Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981

Extended Life Span, 1539

Heat Pipe Augmented Passive Solar System for Heating of Buildings, 273

High-Tech Isolation, 1514

Holding Steady, 1527

Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315

Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137

Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

Piece by Piece, 1509

Retrofit Analysis of Bridge Fender Systems, 1418

Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1

Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96

Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77

Slab Effects in SMRF Retrofit Connection Test, 1098

Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167

Success Stories of Brevard County, Florida Stormwater Utility, 1356

Use of Isolation for Seismic Retrofitting Bridges, 106

Revetments

Seepage Effects in Some Riprap Revetments, 718

Reynolds number

Effect of Particle Shape on Fall Velocity of Angular Particles, 748

Flume Tests for Scour in Clay at Circular Piers, 759

Hydraulic Performance of Coanda-Effect Screens, 712

Laboratory Study of Anchor Ice Growth, 131

Reynolds stress

Measurements of Turbulence Generated by Oscillating Grid, 686

Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301

Rheological properties

Unifying Asphalt Rheological Data Using the Material's Volumetric-Flow Rate, 1003

Rheology

1D Numerical Model of Muddy Subaqueous and Sub-aerial Debris Flows, 758

Rigid frames

Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423

Rigid pavements

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

SUBJECT INDEX

- Regression Model for Back-Calculation of Rigid-Pavement Properties, 1299
- Rigid-body dynamics**
- Buckling of Column with Base Attached to Elastic Half-Space, 304
- Rocking Response of Anchored Blocks under Pulse-Type Motions, 334
- Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333
- Rigidity**
- Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298
- Rings**
- Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305
- Riprap**
- Riprap Protection at Bridge Piers, 706
- Seepage Effects in Some Riprap Revetments, 718
- Risk**
- Reliability, Risk, and Uncertainty Analysis Using Generic Expectation Functions, 547
- Risk analysis**
- Approaches for Making Risk-Based GO/NO-GO Decision for International Projects, 246
- Assessment of an L-Kurtosis-Based Criterion for Quantile Estimation, 806
- Comparing the Hurricane Disaster Risk of U.S. Coastal Counties, 1434
- Construction Surety Bonding, 238
- Exchange Rate Risk Management in International Construction Ventures, 961
- Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835
- Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339
- Risk Assessment for Construction Joint Ventures in China, 219
- Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843
- Risk Indexing Tool to Assist in Prioritizing Improvements to Embankment Dam Inventories, 599
- Risk of Sediment Erosion and Suspension in Turbulent Flows, 689
- Stochastic Analysis of Internal Erosion in Soil Structures—Implications for Risk Assessments, 707
- Risk management**
- Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562
- Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563
- Evaluating and Managing Construction Blasting Risk, 1465
- Exchange Rate Risk Management in International Construction Ventures, 961
- Knowledge-Based Approach to Construction Project Risk Management, 192
- Risk-Based Decisionmaking in Water Resources IX, 1603
- River basins**
- Decision Support System for Surface Water Planning in River Basins, 1366

Road surface

- International Classification and Codification of Watersheds and River Basins, 1368
- River Basin Network Model for Integrated Water Quantity/Quality Management, 1414
- Waste-Load Allocation Using Genetic Algorithms, 1348
- River beds**
- Role of Bed Discordance at Asymmetrical River Confluences, 701
- River flow**
- Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755
- River systems**
- Modeling Klamath River System Operations for Quantity and Quality, 1367
- Rivers**
- 2D Unit Sediment Graph Theory, 789
- Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692
- Debris- and Ice-Skimming Booms at Riverside Diversions, 713
- Field Applications of a Variable-Parameter Muskingum Method, 796
- Hydraulic Roughness of Breakup Ice Jams, 727
- Identifying Cause of Declining Flows in the Republican River, 1363
- Laboratory Observations of Ice Jams in Channel Confluences, 130
- Longitudinal Dispersion Coefficient in Straight Rivers, 754
- Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709
- Predicting River Travel Time from Hydraulic Characteristics, 753
- River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528
- River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128
- River-Ice Ecology. II: Biological Aspects, 129
- Robust Flow Control of Single Input Multiple Outputs Regulated Rivers, 894
- Sediment Transport in Proposed Geomorphic Channel for Napa River, 752
- Wetlands Engineering & River Restoration, 1621
- Road conditions**
- Impact of Road Condition on Elderly Drivers, 1284
- Modeling Indirect Statistics of Surface Roughness, 1266
- The Simulation of Road Surface Profiles, 1285
- Road construction**
- Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593
- Road curves**
- Effect of Vehicles' Suspension on Highway Horizontal Curve Design, 1264
- Required Stopping Sight Distance on Crest Vertical Curves, 1288
- Road surface**
- Computer Model for Life-Cycle Cost Analysis of Roadway Pavements, 190
- Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286

Road surface

Modeling Indirect Statistics of Surface Roughness, 1266

The Simulation of Road Surface Profiles, 1285

Roads

Ground-Penetrating Radar for Cold In-Place Recycled Road Surfaces, 1292

Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007

Robotics

Quality Control Parameters for Robotic Bridge Painting, 227

Robotic Assembly of Space Solar Power Facilities, 23

Robust design

Nonstationary Random Critical Excitation for Acceleration Response, 340

Reliability-Based Optimal Design of Series Structural Systems, 347

Rock joints

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

Rock masses

Big Tunnels in Bad Rock, 635

Rock mechanics

Time-Dependent Poromechanical Responses of Saturated Cylinders, 325

Rock properties

Determining Fault Permeability from Subsurface Barometric Pressure, 643

Rocks

Effect of Treatments on Pore Network of Granites, 989

New Failure Load Criterion for Large Diameter Bored Piles in Weathered Geomaterials, 615

Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631

Rods

Absorption of Aramid Prestressing Rods in Aggressive Solutions, 171

Deflecting Velocity Rod for Flow Measurements in Small Channels, 898

Experimental Methods for Estimating In Situ Tensile Force in Tie Rods, 426

Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157

Roll compacting

Status of Roller Mountable Microwave Asphalt Pavement Density Sensor, 215

Roller compacted concrete

The Many Faces of RCC, 1503

RCC Mix Design—Soils Approach, 976

Roof failures

Local Collapse in Soft Rock Bank Cavities, 665

Roofing materials

Neural Network Model for Uplift Load Capacity of Metal Roof Panels, 1218

Roofs

Neural Network Model for Uplift Load Capacity of Metal Roof Panels, 1218

Rain-on-Snow Surcharge for Roof Design, 1078

2001 ASCE TRANSACTIONS

Ties to Excellence, 1497

Rotary inertia

Reliability Analysis of Rotorcraft Composite Structures, 33

Roughness

Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

Unsteady Friction in Rough Pipes, 723

Route surveys

Incorporating Uncertainty and Multiple Objectives in Real-Time Route Selection, 1322

Routes

Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279

Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297

Genetic Algorithm Approach for Transit Route Planning and Design, 1278

Runoff

Determination of Component of Ground-Water Flow from Rainfall Data, 801

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832

Integrated Physically Based Rainfall-Runoff Model using FEM, 794

Rational Hydrograph Method for Small Urban Watersheds, 814

Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873

Reduced-Runoff Irrigation of Sudan Grass Hay, Imperial Valley, California, 899

Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365

Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673

Runoff forecasting

Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337

Rural areas

Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862

Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256

Spatial Location-Allocation Model for Multiple Center Villages, 1330

Tool for Rural and Statewide Multimodal Transportation Planning, 204

Safety

Crisis Management in Construction Projects, 1576

Global Search Method for Locating General Slip Surface using Monte Carlo Techniques, 634

Statewide Vessel Collision Design for Bridges, 80

Safety factors

Spatial Distribution of Safety Factors, 583

SUBJECT INDEX

Saturated soils

Saline ground water

Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756

Long-Term Strength and Durability of Soil Cement, 988

Salinity

Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735

Optimal Extraction of Water from Regional Aquifer under Salinization, 1343

Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873

River Basin Network Model for Integrated Water Quantity/Quality Management, 1414

Salt water

Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454

Salt water intrusion

Optimal Extraction of Water from Regional Aquifer under Salinization, 1343

Salts

Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

Sampling

Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692

Applications of Horizontal Characterization Techniques in Trenchless Construction, 268

Generalized Flood Skew: Map versus Watershed Skew, 807

Sample Size Determination in Open Channel Inverse Problems, 731

Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disk, 392

Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792

San Francisco

BART SFO Extension Aerial Guideways: Using Non-linear Analysis to Control and Minimize Seismic Damage, 100

Sand

3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687

Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692

Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Base Resistance of Jacked Pipe Piles in Sand, 613

Characterization of Cemented Sand in Triaxial Compression, 648

Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343

Degradation and Migration of Vinclozolin in Sand and Soil, 549

Drained Cyclic Behavior of Sand with Fabric Dependence, 408

Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607

Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11

Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593

Full-Scale Load Test of a Sand-Jack, 1473

Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573

Interaction of Foundry Sands with Geosynthetics, 602

Monotonic and Cyclic Liquefaction of Very Loose Sands with High Silt Content, 598

Performance and Leaching Assessment of Flowable Slurry, 474

Piezocene Penetration Testing in Atlantic Piedmont Residuum, 575

Plasticity Model for Sand under Small and Large Cyclic Strains, 660

Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595

Scale Effect of Strip and Circular Footings Resting on a Dense Sand, 627

Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365

Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263

Source of Jointing Sand for Concrete Block Pavement, 999

Ultimate Lateral Resistance of Pile Groups in Sand, 614

Sand transport

Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395

Sandstone

Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

Sanitary sewers

Liner Lessons, 1552

Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174

Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Urban Drainage Modeling, 1618

Satellite communications

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Satellites

Space Transfer-Vehicle Concept for Deploying Solar-Power Satellites, 24

Saturated soils

Analytical Solutions for Shallow Tunnels in Saturated Ground, 424

Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791

Saturated soils

Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610

Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608

Saturation

Implementation of Porous Media Formulation for Geomaterials, 296

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Time-Dependent Poromechanical Responses of Saturated Cylinders, 325

Saudi Arabia

Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007

Quality of Pavement Construction in Saudi Arabia, 1475

Scale effect

Scale Effect of Strip and Circular Footings Resting on a Dense Sand, 627

Scale models

Impact of Turbidity Currents on Reservoir Sedimentation, 670

Scheduling

The AEC Dilemma—Exploring the Barriers to Change, 919

Algorithm for Determining Controlling Path Considering Resource Continuity, 207

Comparison of Linear Scheduling Method (LSM) and Critical Path Method (CPM), 255

Constructability Improvement of Bridges Using Step-ping Formwork, 235

Construction Delay Computation Method, 217

Control Alternatives at a Waterway Lock, 1389

Cost Optimization in Projects with Repetitive Nonserial Activities, 232

Defining Cost/Schedule Performance Indices and Their Ranges for Design Projects, 954

Developing a Draft Schedule Using Templates and Rules, 257

Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Genetic Algorithm for Selecting and Scheduling Interdependent Projects, 1385

Impact of Rainfall on the Productivity of Highway Construction, 225

Improvement Algorithm for Limited Space Scheduling, 224

Linear Scheduling Model: Float Characteristics, 241

Object-Oriented Model for Repetitive Construction Scheduling, 234

Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243

Optimal Schedule Planning for Multiple, Repetitive Construction Process, 256

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Optimizing Resource Utilization for Repetitive Construction Projects, 212

Optimum Planning of Highway Construction under A + B Bidding Method, 242

2001 ASCE TRANSACTIONS

Probabilistic Optimal-Cost Scheduling, 262

Project Management in Construction: Software Use and Research Directions, 222

Resource Scheduling Using Neural Dynamics Model of Adeli and Park, 213

Scheduling Inspection and Renewal of Large Infrastructure Assets, 850

Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267

Scour

Erosion Function Apparatus for Scour Rate Predictions, 580

Flume Tests for Scour in Clay at Circular Piers, 759

Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581

New Zealand Bridge Scour, 716

N-Type Sediment Bed Response under Standing Wave, 1408

Prediction of Lee-Wake Scouring of Pipelines in Currents, 1391

Riprap Protection at Bridge Piers, 706

Scour around Pile in Combined Waves and Current, 705

Scour of Cohesive Soil by Submerged Circular Turbulent Impinging Jets, 722

Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688

Source of Jointing Sand for Concrete Block Pavement, 999

Use of Vanes for Control of Scour at Vertical Wall Abutments, 741

Wave Scour around a Large Vertical Circular Cylinder, 1393

Scrapers

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Screens

Hydraulic Performance of Coanda-Effect Screens, 712

Sea floor

N-Type Sediment Bed Response under Standing Wave, 1408

Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

Sea water

Bucket Foundation Platforms Installed in Shallow and Ice-Drifting Area, 140

New MOC Model of Seawater Transport in Coastal Aquifers, 817

Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009

Three-Dimensional Ecological-Eutrophication Model for Singapore, 546

Sealants

Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872

Seasonal variations

Development of Exceedance Probability Streamflow Forecast, 773

Seattle

Damage Report from Seattle, 1522

SUBJECT INDEX

Seismic analysis

Security

- Global Engineering and Construction Change, 921
- Web-Centric Framework for Secure and Legally Binding Electronic Transactions in Large-Scale A/E/C Projects, 201

Sediment

- Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655
- Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720
- Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387
- Incipient Motion Criteria for Rigid Sediment Grain on Rigid Surface, 338
- Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS, 529
- Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749
- N-Type Sediment Bed Response under Standing Wave, 1408
- Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415
- Removal of Dissolved Organic Carbon in Sanitary Gravity, 466
- Sedimental Journey, 1499
- Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Stochastic Analysis of Internal Erosion in Soil Structures—Implications for Risk Assessments, 707
- Suction Removal of Sediment from between Armor Blocks, 696
- Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301

Sediment concentration

- 2D Unit Sediment Graph Theory, 789
- Development of Integrated Sediment Rating Curves Using ANNs, 672
- Impact of Turbidity Currents on Reservoir Sedimentation, 670
- Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340
- Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395
- Sediment Diversion through Irrigation Outlets, 859
- Two-Phase Flow Analysis of Concentration Profiles, 739

Sediment control

- Risk of Sediment Erosion and Suspension in Turbulent Flows, 689
- Sediment Diversion through Irrigation Outlets, 859

Sediment deposits

- 3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687
- Bank Profile of Threshold Channels: A Simplified Approach, 881
- Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721

Sediment discharge

- Rational Criterion for Designing Opening of Slit-Check Dam, 677
- Sediment Diversion through Irrigation Outlets, 859

Sediment load

- Aggradation at Bridges, 683

Sediment transport

- Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692
- Aggradation at Bridges, 683
- Development of Integrated Sediment Rating Curves Using ANNs, 672
- Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721
- Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340
- Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708
- Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803
- New Results and Research Needs on Sediment Movement in Urban Drainage, 1357
- Numerical Morphological Modeling of Open-Check Dams, 678
- Parameter Identifiability for Three Sediment Entrainment Equations, 868
- Risk of Sediment Erosion and Suspension in Turbulent Flows, 689
- Sediment Diversion through Irrigation Outlets, 859
- Sediment Pickup on Streamwise Sloping Beds, 860
- Sediment Transport and Backfilling of Trenches in Oscillatory Flow, 1411
- Sediment Transport in Proposed Geomorphic Channel for Napa River, 752

Sedimentary rock

- Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631

Sedimentation

- Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432
- Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567

Sedimentation tanks

- Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Seepage

- Design of Minimum Seepage Loss Canal Sections with Drainage Layer at Shallow Depth, 895
- Design of Minimum Seepage-Loss Nonpolygonal Canal Sections, 871
- Determining Irrigation Canal Seepage with Electrical Resistivity, 857
- Seepage Effects in Some Riprap Revetments, 718
- Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798

Segmented elements

- Performance of Segmental and Posttensioned Bridges in Europe, 118

Seismic analysis

- Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110
- Evaluation of NSP to Estimate Seismic Deformation: SDF Systems, 7
- Local Versus Global Ductility Demands in Simple Bridges, 1136

Seismic analysis

- Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137
- Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Pseudostatic Approach for Seismic Analysis of Single Piles, 638
- Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135
- Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636
- Seismic Analysis of Segmental Retaining Walls. II: Effects of Facing Details, 637
- Seismic design**
- Analytical Modeling and Seismic Design of Steel Moment Connections with Welded Straight Haunch, 1189
- Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81
- Estimation of Inelastic Deformation Demands of SDOF Systems, 1186
- Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120
- Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597
- Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Probabilistic Seismic Demand Model for California Highway Bridges, 109
- Raising the Bar of BART, 1563
- RC Structural Walls Designed According to UBC and Displacement-Based Methods, 1131
- Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1
- Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107
- Seismic Design Method for Thin-Walled Steel Frame Structures, 1087
- Seismic Restrainer Design Methods for Simply Supported Bridges, 92
- Seismic effects**
- Energy Dissipation at PR Frames under Seismic Loading, 1140
- Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609
- Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Seismic hazard**
- Can This Town Survive? Case Study of a Buried Philippine Town, 1428
- Risk and Impact of Natural Hazards on a Road Network, 1273
- Seismic Fragility of RC Structural Walls: Displacement Approach, 1097
- Seismic isolation**
- Use of Isolation for Seismic Retrofitting Bridges, 106
- Seismic response**
- Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227
- Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193
- Dynamic Experiments and Analyses of a Pile-Group-Supported Structure, 624

2001 ASCE TRANSACTIONS

- Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69
- Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81
- Estimation of Inelastic Deformation Demands of SDOF Systems, 1186
- Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413
- Near-Fault Ground Motion Effects on Simple Structures, 1185
- Optimal Placement of Multiple Tuned Mass Dampers for Seismic Structures, 1192
- Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075
- Proportioning of Earthquake-Resistant RC Building Structures, 1088
- Response of an Earth Dam to Spatially Varying Earthquake Ground Motion, 385
- Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96
- Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191
- Seismic Interaction in Cable-Connected Equipment Items, 407
- Seismic Performance of Hillside Fills, 653
- Seismic Performance of RC Bridge Column under Repeated Ground Motions, 108
- Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238
- Seismic simulators**
- Dynamic Load Simulator: Development of a Prototype, 429
- Seismic stability**
- Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153
- Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134
- Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129
- Seismic Reliability of Masonry Infilled RC Frames, 1106
- Toggle-Brace-Damper Seismic Energy Dissipation Systems, 1083
- Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425
- Seismic tests**
- Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075
- Seismic waves**
- Evaluation Findings for Seismic Energy Products, L.P. Elastomeric Isolation Bearing, 1580
- Selection**
- Design-Builder Selection for Small Highway Projects, 964
- Selenium**
- Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451
- Sensitivity analysis**
- Assessing Sensitivity Factors of Irrigation Delivery Structures, 902

SUBJECT INDEX

Shallow water

Sensitivity Analysis of Neural Networks in Spool Fabrication Productivity Studies, 208

Sensitivity of Optimum Designs for Spatially Varying Ground Motions, 1223

Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382

Separation

Operation of Full-Scale Oily Wastewater Treatment System, 1451

Practical Method to Prevent Liquid-Column Separation, 724

Separation techniques

Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432

Sequencing batch reactor

SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441

SBR System for Phosphorus Removal: Linear Model Based Optimization, 442

Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461

Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463

Service life

Cognizance of Visual Design Management in Life-Cycle Project Management, 947

Integrated Computational Life-Cycle Assessment of Buildings, 179

Maintenance Planning for Deteriorating Concrete Bridges, 3

Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041

Service loads

Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56

Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212

Serviceability

Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313

Macroscopic Optimum System for Management of Pavement Rehabilitation, 1317

Probabilistic Models of Damaging Deflections for Floor Elements, 1048

Settlement

Piled Raft Foundation Design, 572

Settlement analysis

Revising the Cuthroat Flume Settlement Rating Adjustment Procedure, 863

Settling velocity

Conventional and AWT Mixed-Liquor Settling Characteristics, 460

Sewage

Supercritical Flow in 45° Junction Manhole, 869

Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Unraveling of BOT Scheme: Malaysia's Indah Water Consortium, 265

Sewage sludge

Class A Pathogen Reduction in the SSDML Process, 1446

Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS, 529

Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Study of Sewage Sludge Pyrolysis Mechanism and Mathematical Modeling, 502

Use of Sewage Sludge Ash as Brick Material, 545

Sewage treatment

Class A Pathogen Reduction in the SSDML Process, 1446

Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Sewer design

Design of Sewer Line, 526

Sewer maintenance

Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358

Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Sewer pipes

Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682

Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174

Sewers

Design of Sewer Line, 526

Evaluation of SSET: The Sewer Scanner & Evaluation Technology, 1581

Gas-Liquid Mass Transfer along Small Sewer Reaches, 482

Shafts

Great Excavations, 1532

Turning with the Wind, 1525

Shale

Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

Shallow foundations

Bridge Foundations for Hightstown Bypass, 662

Design and Construction of Frost-Protected Shallow Foundations, 1577

Expansive Clay Soils and Vegetative Influence on Shallow Foundations, 1583

Load Tests on Residual Soil and Settlement Prediction on Shallow Foundation, 649

Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595

Shallow water

Bucket Foundation Platforms Installed in Shallow and Ice-Drifting Area, 140

Design of Minimum Seepage Loss Canal Sections with Drainage Layer at Shallow Depth, 895

- Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695
- Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755
- Flapping Instability of Vertically Impinging Turbulent Plane Jets in Shallow Water, 327
- Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332
- Performance of Tee Diffusers in Shallow Water with Crossflow, 674
- Solitary Wave Runup on Plane Slopes, 1384
- Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673

Shape

- Effect of Particle Shape on Fall Velocity of Angular Particles, 748

Sharp-crested weirs

- Flow over a "Killer" Weir Design Project, 766

Shear

- Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77

Shear deformation

- Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306
- Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409
- Generalized Bending of Shear-Deformable Plate with Elastic Inclusion, 384
- Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069
- New Model for Shear Failure of RC Interior Beam-Column Connections, 1089

Shear failure

- Diagonal Shear Failure and Size Effect in RC Beams without Web Reinforcement, 1156
- New Model for Shear Failure of RC Interior Beam-Column Connections, 1089
- Shear Strength of Concrete-Encased Composite Structural Members, 1207

Shear flow

- Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Shear lag

- Pavement Design in Taklimakan Desert, 1267
- Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125
- Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286

Shear modulus

- Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Shear resistance

- Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079
- Source of Jointing Sand for Concrete Block Pavement, 999

Shear strain

- Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594
- Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321

Shear strength

- Analytical Model for Predicting Shear Strength of Squat Walls, 1074
- Behavior of a Loosely Compacted Unsaturated Volcanic Soil, 664
- Behavior of Composite Concrete Beams with Smooth Interface, 1113
- Characterization of Cemented Sand in Triaxial Compression, 648
- Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070
- Effect of Variables on Shear Strength of Concrete Beams, 1029
- Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069
- Punching Shear Strength of Simply Supported Ferrocement Slabs, 1022
- Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135
- Shear Strength of Concrete-Encased Composite Structural Members, 1207
- Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620
- Shear Strength of Normal Strength Concrete Beams Reinforced with Deformed GFRP Bars, 173
- Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Shear Strengthening of Reinforced Concrete Beams with FRP Rods, 155
- Strength and Serviceability of FRP Grid Reinforced Bridge Decks, 124
- Shear stress**
- Circular Bars under Distributed Torques, 15
- Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721
- Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070
- Effect of Sediment pH on Resuspension of Kaolinitic Sediments, 495
- Erosion Function Apparatus for Scour Rate Predictions, 580
- Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280
- Interface Shear Stress: A New Design Criterion for Plate Debonding, 147
- Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708
- Moiré Interferometry Analysis of Fiber Debonding, 350
- New Model for Shear Failure of RC Interior Beam-Column Connections, 1089
- On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315
- Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594
- Prediction of Lee-Wake Scouring of Pipelines in Currents, 1391
- Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080

SUBJECT INDEX

Silty soils

Shear tests

- Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585
- Interaction of Foundry Sands with Geosynthetics, 602
- Micromechanical Analysis of the Shear Behavior of a Granular Material, 396

Shear walls

- Analytical Model for Predicting Shear Strength of Squat Walls, 1074
- Cyclic Analysis of Wood Shear Walls, 1123
- Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238
- Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080

Shear waves

- 1D Time-Domain Solution for Seismic Ground Motion Prediction, 574
- Probabilistic Framework for Liquefaction Potential by Shear Wave Velocity, 632

Sheet piles

- Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079

Sheets

- Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170
- Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166
- Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Shell structures

- Adaptive FE Analysis of RC Shells. I: Theory, 418
- Adaptive FE Analysis of RC Shells. II: Applications, 419
- Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421

Shells

- Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541
- Elastic Buckling of Multilayered Anisotropic Conical Shells, 19
- Flexural Behavior of Circular Concrete Filled FRP Shells, 1165
- Refined Global Approximation Theory of Multilayered Plates and Shells, 292

Ship bridge collisions

- Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032
- Statewide Vessel Collision Design for Bridges, 80

Ship motion

- Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413

Shoaling

- Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387

Shock waves

- Dam-Break Waves in Power-Law Channel Section, 699
- Supercritical Flow in 45° Junction Manhole, 869

Shore protection

- Sedimental Journey, 1499

Shoreline changes

- Sedimental Journey, 1499
- Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400

Shoring

- Design and Construction of High Multitier Shoring Towers: Case Study, 223
- Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050

Shotcrete

- Shotcrete for Underground Support VIII, 1604

Shrinkage

- Consistent Procedure for Creep and Shrinkage Effects in RC Frames, 1155
- Effect of Desiccation on Compacted Natural Clays, 577
- Influence of Supporting Base Characteristics on Shrinkage-Induced Stresses in Concrete Pavements, 1312
- Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282
- Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077

Sight distances

- Improvements to Sight Distance Algorithm, 1289

Signal processing

- Wavelet Transform Analysis of Open Channel Wake Flows, 285

Silica

- Durability of Silica Fume Concrete Exposed to Chloride in Hot Climates, 972
- Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Silos

- 3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401
- Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200
- Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399
- Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403
- Finite-Element Modeling of Filling Pressures in a Full-Scale Silo, 402
- Numerical Aspects of FE Simulations of Granular Flow in Silos, 400

Silts

- Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607
- Erosion Function Apparatus for Scour Rate Predictions, 580
- Monotonic and Cyclic Liquefaction of Very Loose Sands with High Silt Content, 598
- Piezcone Penetration Testing in Atlantic Piedmont Residuum, 575

Silty soils

- Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607

Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470

Simulation

3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401

3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

Applied Element Simulation of RC Structures under Cyclic Loading, 1220

Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359

Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791

Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimen, 324

Diagnosing Upsets in Anaerobic Wastewater Treatment Using Bayesian Belief Networks, 467

Dynamic Simulation of Landfill Waste Stabilization, 566

Empirical Method of Error Analysis in Volume Estimation: Monte Carlo Simulation under Kriging and Triangulation, 1247

Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403

Experimental and Numerical Simulations of Jointed Rock Block Strength under Uniaxial Loading, 422

Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702

Granular Dynamics Simulations of Heap Formation: The Effects of Feed Rate on Segregation Patterns in a Binary Granular Heap, 395

Homogenization of Masonry Using Numerical Simulations, 328

Micromechanical Analysis of the Shear Behavior of a Granular Material, 396

Non-Gaussian Wind Pressure on Prismatic Buildings. II: Numerical Simulation, 1184

Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698

A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349

Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792

Simulated Micromechanical Models using Artificial Neural Networks, 362

Simulating Mobile Populations in Aquatic Ecosystems, 1377

Simulation as a Tool for Resource Management, 226

Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365

Simulation of Highly Skewed Non-Gaussian Stochastic Processes, 427

The Simulation of Road Surface Profiles, 1285

Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688

Simulation of Structural Concrete under Cyclic Load, 1231

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377

Transformable Structures Design Features and Preliminary Investigation, 39

Unsaturated-Flow Simulation with Green Element Models, 697

Visualizing Simulated Construction Operations in 3D, 210

Simulation models

Analyzing Performance of ETC Plazas Using New Computer Software, 206

Modeling Construction Operations with RISim, 209

Optimal Extraction of Water from Regional Aquifer under Salinization, 1343

Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

Singapore

Construction Coordination Activities: What is Important and What Consumes Time, 963

Three-Dimensional Ecological-Eutrophication Model for Singapore, 546

Site selection

Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120

Size

Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Size effect

Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimen, 324

Diagonal Shear Failure and Size Effect in RC Beams without Web Reinforcement, 1156

Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230

Size-Effect on Fatigue in Bending of Concrete, 1026

Skewness

Buckling of Skew Plates with Continuity or Rotational Edge Restraint, 28

Generalized Flood Skew: Map versus Watershed Skew, 807

Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91

Skimming

Debris- and Ice-Skimming Booms at Riverside Diversions, 713

Slabs

Alternative Layout for the Prestressing of Slab Bridges, 94

Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208

Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

Punching Shear Strength of Simply Supported Ferrocement Slabs, 1022

State of Practice of Residential Floor Slab Flatness, 1047

Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167

SUBJECT INDEX

Slag

Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Slenderness ratio

Effective Length Factor for Discontinuous X-Bracing Systems, 290

Slenderness Limit for Hybrid FRP-Concrete Columns, 146

Statistical Analyses of Strength of Slender RC Columns, 1071

Slip

Global Search Method for Locating General Slip Surface using Monte Carlo Techniques, 634

Neoprene Bearing Pad Slippage at Louisiana Bridges, 58

Slope stability

GIS-Based Estimation of Slope Stability, 1422

Spatial Distribution of Safety Factors, 583

Slope stabilization

Stabilizing a Crater Rim, 1546

Surface Drainage for Slope Stabilization, 1615

Slopes

Behavior of Sloped-Bottom Tuned Liquid Dampers, 308

Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855

Estimating the Depth of Deposition (Erosion) at Slope Transitions on Alluvial Fans, 742

Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896

Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293

Sediment Pickup on Streamwise Sloping Beds, 860

Solitary Wave Runup on Plane Slopes, 1384

Three-Dimensional Analysis of Performance of Laterally Loaded Sleeved Piles in Sloping Ground, 616

Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410

Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

Slushing

Behavior of Sloped-Bottom Tuned Liquid Dampers, 308

Sludge

Chromium (III) Isolation from Acid Extract of Tannery Sludge, 1460

Conventional and AWT Mixed-Liquor Settling Characteristics, 460

Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468

Sludge treatment

BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492

Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459

Slurries

Performance and Leaching Assessment of Flowable Slurry, 474

Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433

Socioeconomic data

Relative Dissolution Rates of Several Hydrated Limes, 499

Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463

Slurry pipelines

Critical Flow Velocity in Slurry Transporting Horizontal Pipelines, 740

Small business

The Power of the Press Release, 1485

Preparing for a Slowdown, 1491

Small Business Report: The Home Advantage, 1506

Small crafts

Hydrographic Surveying from Personal Watercraft, 1243

Small structures

Micromechanical Analysis of the Shear Behavior of a Granular Material, 396

Smoke control

Numerical Studies on Smoke Filling Process in an Airport Terminal, 46

Snow loads

Another Look at Hartford Civic Center Coliseum Collapse, 1034

Rain-on-Snow Surcharge for Roof Design, 1078

Snow roads

Risk and Impact of Natural Hazards on a Road Network, 1273

Snowpacks

A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785

Rain-on-Snow Surcharge for Roof Design, 1078

Snowstorms

Snow Event Effects on Interstate Highway Crashes, 141

Social aspects

Engineering As Applied Social Science, 1067

Social factors

Current Philosophy of Sustainability in Civil Engineering, 1051

Engineering, Leadership, and Integral Philosophy, 1052

Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427

Strategic Management in Design Firms, 1054

When Disasters and Age Collide: Reviewing Vulnerability of the Elderly, 1429

Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425

Social impact

Socioeconomic Reverberations of Earthquake Prediction: Snapshot in Time, Peru 1979-1981, 1433

Socioeconomic data

Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274

Soft soils

Mexico City Soil Behavior at Different Strains: Observations and Physical Interpretation, 641

Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122

Soft Ground Technology, 1605

Soil cement

Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623

Long-Term Strength and Durability of Soil Cement, 988

Pullout Tests on Deformed and Plain Rebars in Cement-Stabilized Rammed Earth, 1006

Simplified Method to Assess Freeze-Thaw Durability of Soil Cement, 1000

Soil chemistry

Surface Cleanliness Effect on Lunar Soil Shear Strength, 604

Soil classification

Geotechnical Testing, Observation, and Documentation, 1585

Soil compaction

Foundations and Ground Improvement, 1584

Seismic Performance of Hillside Fills, 653

Soil compressibility

Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342

Soil conditions

Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590

Driveability of FRP Composite Piling, 586

Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121

Soil deformation

Analytical Solutions for Shallow Tunnels in Saturated Ground, 424

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Prediction of Ground Movements due to Pile Driving in Clay, 576

Soil erosion

Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803

Stabilizing a Crater Rim, 1546

Stochastic Analysis of Internal Erosion in Soil Structures—Implications for Risk Assessments, 707

Soil gas

Interaction of Soil Air Permeability and Soil Vapor Extraction, 434

Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446

Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447

Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497

Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10

Soil improvement

Foundations and Ground Improvement, 1584

Model of Compaction Grouting, 658

Soft Ground Technology, 1605

Soil layers

Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590

Soil lime

Behavior of Compacted Soil-Fly Ash-Carbide Lime Mixtures, 640

Soil mechanics

Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571

Expansive Clay Soils and Vegetative Influence on Shallow Foundations, 1583

Soils Magic, 1606

Soil mixtures

Biodegradation of Naphthalene-Contaminated Soils in Slurry Bioreactors, 522

Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518

Soil-Water Characteristic Curves and Dual Porosity of Sand-Diatomaceous Earth Mixtures, 642

Soil modulus

Passive Earth Pressures: Theories and Tests, 592

Soil permeability

Design of Circular Infiltration Basin under Mounding Effects, 1342

Influence of Porosity on Piping Models of Levee Failure, 669

Interaction of Soil Air Permeability and Soil Vapor Extraction, 434

Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447

Soil pollution

Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458

Biodegradation of Naphthalene-Contaminated Soils in Slurry Bioreactors, 522

Bioleaching of Metal-Contaminated Soil in Semicontinuous Reactor, 530

Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472

Effects of Organic Cation Structure on Behavior of Organobentonites, 603

Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Experimental Investigations of Oxygenated Gasoline Dissolution, 455

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518

Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496

Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564

Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473

Predictions of Biotreatability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

SUBJECT INDEX

Soils

Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470

Thermally Enhanced Vapor Extraction for Removing PAHs from Lampblack-Contaminated Soil, 554

Uranium Speciation, Plant Uptake, and Phytoremediation, 1454

Soil porosity

Influence of Porosity on Piping Models of Levee Failure, 669

Soil-Water Characteristic Curves and Dual Porosity of Sand-Diatomaceous Earth Mixtures, 642

Soil properties

Quantify Doublet Vector Distribution of Granular Materials, 360

Soil resistance

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 597

Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils, 644

Passive Earth Pressures: Theories and Tests, 592

Soil sampling

Geotechnical Testing, Observation, and Documentation, 1585

Soil settlement

Does Lateral Stress Really Influence Settlement?, 628

Load Tests on Residual Soil and Settlement Prediction on Shallow Foundation, 649

Soil, shear strength

Surface Cleanliness Effect on Lunar Soil Shear Strength, 604

Soil stabilization

Foundations and Ground Improvement, 1584

Lime Cement Column Ground Stabilization for I-15 in Salt Lake City, 1472

Soft Ground Technology, 1605

Stabilization of Sebkhia Soil Using Foamed Asphalt, 1010

Surface Drainage for Slope Stabilization, 1615

Use of Class C Fly Ashes for the Stabilization of an Expansive Soil, 622

Soil strength

Passive Earth Pressures: Theories and Tests, 592

Soil stresses

Does Lateral Stress Really Influence Settlement?, 628

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Soil structure

Nonlinear Finite-Element Modeling of Batter Piles under Lateral Load, 626

Stochastic Analysis of Internal Erosion in Soil Structures—Implications for Risk Assessments, 707

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Soil suction

Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507

Soil tests

Geotechnical Testing, Observation, and Documentation, 1585

Going Against the Grain, 1547

Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573

Soil treatment

Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472

Groundwater and Soil Remediation: Process Design and Cost Estimating of Proven Technologies, 1586

Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446

Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473

Predictions of Bioremediability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470

Soil water

Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Land Cover Change and Its Impact on Soil-Moisture-Field Evolution, 823

Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866

Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790

Soil-Water Characteristic Curves and Dual Porosity of Sand-Diatomaceous Earth Mixtures, 642

Unsaturated Particulate Materials—Particle-Level Studies, 579

Soil water storage

Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872

Soil-pile interaction

Dynamic Experiments and Analyses of a Pile-Group-Supported Structure, 624

Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612

Soils

Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655

Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623

Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381

Degradation and Migration of Vinclozolin in Sand and Soil, 549

Effect of Soil-Particle Size Contrast on Capillary Barrier Performance, 650

Elastoplastic Model for Cemented Soils, 633

Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481

Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573

Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S.S.] EDDS, 529

Multiobjective Transportation Planning for Waste Hauling, 485

Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493

Numerical Model for Biological Oxidation and Migration of Methane in Soils, 1464

Simple Method of Modeling PVD-Improved Subsoil, 659

Soil-structure interaction

Apparent Periods of a Building. I: Fourier Analysis, 1132

Apparent Periods of a Building. II: Time-Frequency Analysis, 1133

BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295

Investigation of Design Alternatives for a Piled Raft Case History, 629

Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612

Passive Earth Pressures: Theories and Tests, 592

Pseudostatic Approach for Seismic Analysis of Single Piles, 638

Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636

Seismic Analysis of Segmental Retaining Walls. II: Effects of Facing Details, 637

Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609

Standard Practice for Direct Design of Buried Precast Concrete Box Sections, 1609

Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610

Solar collectors

Space Solar Power: A Major New Energy Option?, 20

Solar energy

Heat Pipe Augmented Passive Solar System for Heating of Buildings, 273

Robotic Assembly of Space Solar Power Facilities, 23

Silicon PV Cell Production on the Moon, 26

Space Solar Power: A Major New Energy Option?, 20

Space Solar Power: An Assessment of Challenges and Progress, 21

Space Solar Power: Environmental Questions and Future Studies, 25

Space Transfer-Vehicle Concept for Deploying Solar-Power Satellites, 24

Technical Assessment of Space Solar Power Research Program, 22

Solar radiation

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

Evaporation Estimation for Lake Okeechobee in South Florida, 875

Solid waste management

Decision Support Tool for Life-Cycle Based Solid Waste Management, 178

Finding a Better Cover, 1484

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. I: Model Development, 559

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. II: Extensions and Applications, 560

Multiobjective Transportation Planning for Waste Hauling, 485

Solid wastes

Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541

Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440

Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445

Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567

Multiobjective Transportation Planning for Waste Hauling, 485

Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439

VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463

Solidification

Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453

Solids

Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342

Review of Two Decades of Experience with TF/SC Process, 476

Solid Circulation Rate in Recirculating Fluidized Bed, 275

Solids flow

Material Flow Analyses of Noncircular-Shaped Granular Media using Discrete Element Methods, 397

Numerical Aspects of FE Simulations of Granular Flow in Silos, 400

Solitary wave

Solitary Wave Runup on Plane Slopes, 1384

Solutes

General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813

Interval Computing Method for Analyzing Field-Scale Solute Transport, 828

Solutions

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521

Sorption

Biodegradation of Naphthalene-Contaminated Soils in Slurry Bioreactors, 522

Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447

Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481

Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496

Oil Spill Remediation Using Magnetic Separation, 484

SUBJECT INDEX

St. Lawrence River

Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9

South Africa

The Inherent Personality of Women as an Asset to the Engineering Workplace, 932

South Carolina

Design-Builder Selection for Small Highway Projects, 964

Southeastern United States

"One Way Out": Contraflow Freeway Operation for Hurricane Evacuation, 1431

Space exploration

Robotic Assembly of Space Solar Power Facilities, 23

Silicon PV Cell Production on the Moon, 26

Space Solar Power: A Major New Energy Option?, 20

Space Solar Power: An Assessment of Challenges and Progress, 21

Space Solar Power: Environmental Questions and Future Studies, 25

Technical Assessment of Space Solar Power Research Program, 22

Space frames

Another Look at Hartford Civic Center Coliseum Collapse, 1034

Space structures

Vibration and Damping in Three-Bar Tensegrity Structure, 27

Space truss

Another Look at Hartford Civic Center Coliseum Collapse, 1034

Spacecraft

Contour Dust Shield Performance, 34

Spacing

Application of Periodic Boundary for Large Pile Group, 651

Model for Determining Optimum Bus-Stop Spacing in Urban Areas, 1277

Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908

Spain

Speeding Across Spain, 1518

Spatial analysis

Generalized Flood Skew: Map versus Watershed Skew, 807

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368

Spatially Averaged Open-Channel Flow over Rough Bed, 680

Spatial data

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

Extracting Hydrologic Information from Spatial Data for HMS Modeling, 833

Spatial Data, Coordinate Systems, and the Science of Measurement, 1253

Spatial distribution

Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771

Spatial Distribution of Extracellular Polymeric Substances in Biofilms, 536

Spatial Distribution of Safety Factors, 583

Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973

Specifications

Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300

Spectral density function

Simulation of Highly Skewed Non-Gaussian Stochastic Processes, 427

Spectral reflectance

Wave Energy and Direction Observed Near Pier, 1380

Speed control

Control Alternatives at a Waterway Lock, 1389

Spheres

Modeling Nonspherical Particles Using Multisphere Discrete Elements, 391

Spillways

Flow over Ogee Spillway: Physical and Numerical Model Case Study, 726

Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783

Spray nozzles

Modeling Water Distribution for Irrigation Machine with Small Spray Nozzles, 877

Spraying

Dust Suppression Using Truck-Mounted Water Spray System, 216

Spreadsheets

Cost Optimization in Projects with Repetitive Nonserial Activities, 232

Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266

Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267

Sprinkler irrigation

Analytical Solution for Normal Irrigation Distribution Parameters, 861

Comparison of Fixed and Rotating Spray Plate Sprinklers, 886

Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892

Sprinkler Technologies, Soil Infiltration and Runoff, 887

Sprinklers

Comparison of Fixed and Rotating Spray Plate Sprinklers, 886

Selection of Sprinkler Lateral for Shorter Life Cycle, 893

Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892

St. Lawrence River

Theoretical Development of Forces on Cylindrical Ice Booms, 137

Stability

- Approximate Analysis Method for Modular Tubular Falsework, 1101
- Global Stability Analysis for Bird-Shaped Girders, 1107
- Inverse Design of Frames for Specified Second-Order Bending Strains, 1139
- Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221
- Strength and Stability of Steel Frames in Fire: Rankine Approach, 1126
- Stability analysis**
- Load-Factor Stability Analysis of Embankments on Saturated Soil Deposits, 610
- Spatial Distribution of Safety Factors, 583
- Stability Analysis of Box-Girder Cable-Stayed Bridges, 62
- Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714
- Stability criteria**
- Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16
- Stabilization**
- Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623
- Dynamic Simulation of Landfill Waste Stabilization, 566
- Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498
- Recovery and Marine Clay Stabilization of Heavy Metals Present in Spent Hydrotreating Catalysts, 544
- Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287
- Stadiums**
- Mile High Design, 1513
- Stainless steel**
- Tests of X- and K-Joints in CHS Stainless Steel Tubes, 1206
- Tests of X- and K-Joints in SHS Stainless Steel Tubes, 1205
- Stairs**
- Exact Static Analysis of Helicoidal Structures of Arbitrary Shape and Variable Cross Section, 1217
- Standard deviation**
- Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262
- Standard penetration tests**
- SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654
- Standardization**
- Standards Usage Language (SUL), 186
- Standards**
- Global Engineering and Construction Change, 921
- Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111
- Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691
- Standards Usage Language (SUL), 186
- Underwater Investigation Standard Practice Manual, 1617

Standing waves

- N-Type Sediment Bed Response under Standing Wave, 1408

State agencies

- Assessing Water Availability under a Water Rights Priority System, 1362
- Peer Review to Enhance State Transportation Research Program, 918
- The Road to Reuse, 1545

State government

- Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564
- Parkway Payoff, 1564

State planning

- Impacts of Analysis Zone Structures on Modeled State-wide Traffic, 1257

Static loads

- Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70
- Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239
- Moment Resistance of Steel I-Beam to CFT Column Connections, 1204
- Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

Static structural analysis

- Exact Static Analysis of Helicoidal Structures of Arbitrary Shape and Variable Cross Section, 1217

Stationary processes

- Extreme Value of Response to Nonstationary Excitation, 319

Statistical analysis

- Case-Based Reasoning Approach in Bid Decision Making, 214
- Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023
- Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977
- Statistical Analyses of Strength of Slender RC Columns, 1071

Statistical models

- Bid-Spread, 228
- Structural Equation Model of Construction Contract Dispute Potential, 12

Statistics

- Effect of Short-Term Memory on Hurst Phenomenon, 788
- Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31
- Statistical and Genetic Algorithms Classification of Highways, 1283

Steady flow

- Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322
- Leak Detection in Pipes by Frequency Response Method, 681
- Sediment Pickup on Streamwise Sloping Beds, 860
- Wave Scour around a Large Vertical Circular Cylinder, 1393

SUBJECT INDEX

Steel plates

Steady state

Approach to Steady State in Completely Mixed Flow Reactors, 431

Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435

Steady state models

BEM Analysis of Two-Dimensional Elastodynamic Problems of Anisotropic Solids, 295

Steel

Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214

Analytical Modeling and Seismic Design of Steel Moment Connections with Welded Straight Haunch, 1189

Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222

Behavior of Steel Box Girders with Top Flange Bracing, 2

Competitive Edge, 1529

Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144

Concrete-Steel Composite Coupling Beams. II: Subassembly Testing and Design Verification, 1145

Cyclic Stability Criteria for Steel Moment Connections with Reduced Beam Section, 1188

Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232

Dynamic Analysis of Steel Curved Box Girder Bridges, 113

Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993

Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165

Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968

Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346

Modeling of Concrete Cracking Induced by Steel Expansion, 990

Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147

Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148

Repair of Localized Damage in Steel by Heat Straightening, 1199

Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125

Slab Effects in SMRF Retrofit Connection Test, 1098

Steel Single Box Ramp Bridges, 85

Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Steel beams

Engineered Heat-Straightening Repairs: A Case Study, 66

Finite-Element Modeling of Beams under Concentrated Loading, 1092

Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069

Moment Resistance of Steel I-Beam to CFT Column Connections, 1204

Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal Leg Tension, 1143

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102

Steel columns

Basis and Application of a Simple Interaction Formula for Steel Columns under Fire Conditions, 1209

Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149

Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68

Steel construction

Structural Steel Selection Considerations: A Guide for Students, Educators, Designers, and Builders, 1613

Steel fibers

High-Temperature Compressive Strength of Steel Fiber High-Strength Concrete, 998

Moiré Interferometry Analysis of Fiber Debonding, 350

Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072

Steel frames

Basis and Application of Simple Interaction Formula for Steel Frames under Fire Conditions, 1210

Durability Evaluation of Intumescent Coating for Steel Frames, 1004

Energy Dissipation at PR Frames under Seismic Loading, 1140

Fire Resistance of Steel Frames using Classical and Numerical Methods, 1167

Inelastic Analysis of Steel Frames with Composite Beams, 1094

Posttensioned Seismic-Resistant Connections for Steel Frames, 1084

Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129

Seismic Design Method for Thin-Walled Steel Frame Structures, 1087

Strength and Stability of Steel Frames in Fire: Rankine Approach, 1126

The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

Steel pipes

Post-Finite Element Prediction Strategies for Engineering Structures, 1228

Testing and Analysis of Steel Pipe Segments, 1306

Steel plates

Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162

Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117

Interface Shear Stress: A New Design Criterion for Plate Debonding, 147

Pushing Back, 1523

Residual Stresses in Heat-Straightened Steel Members, 969

Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams, 1237

Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114

Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288

Steel structures

- Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141
- Design of Cold-formed Channels Subjected to Web Crippling, 1201
- Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134
- Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081
- Inelastic Large Deflection Modeling of Beam-Columns, 1172
- Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846
- Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154

Stiffness

- Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262
- Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70
- Design of Composite Surrogate Mirror Support Structure, 30
- Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302
- Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967
- Effective 3D Constitutive Relation of Composites with Evolving Damage, 353
- Energy Dissipation at PR Frames under Seismic Loading, 1140
- Global Stability Analysis for Bird-Shaped Girders, 1107
- In-Plane Analysis of Masonry Infill Materials, 1479
- In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299
- Inverse Design of Frames for Specified Second-Order Bending Strains, 1139
- Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147
- Performance of Geosynthetic-Reinforced Asphalt Pavements, 587
- Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236
- Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154
- Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153
- Torsional Stiffness of Multicell Hollow Sections, 1469
- Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412
- Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596
- Vibration and Damping in Three-Bar Tensegrity Structure, 27
- Stiffness coefficients**
 - Buckling of Cylindrical Tunnel Liners, 317
- Stiffness matrix**
 - Exact Static Analysis of Helicoidal Structures of Arbitrary Shape and Variable Cross Section, 1217

- Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233

Stiffness methods

- Stiffness Modeling of Bolted T-Stub Connection Components, 1130

Stochastic models

- Interval Computing Method for Analyzing Field-Scale Solute Transport, 828
- Monitoring Two Tunnels, 1493
- Random Field Modeling of Elastic Properties Using Homogenization, 281
- Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775
- Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841
- Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382
- Stochastic Field Models for Aircraft Jet Engine Applications, 32
- Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 1109
- Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288
- Stochastic Model for Multilane Traffic Effects on Bridges, 71
- Stochastic Model for Time-Dependent Compression of Particulate Media, 339

Stochastic processes

- Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313
- Double-Modal Transformation and Wind Engineering Applications, 329
- Interior-Point Method for Reservoir Operation with Stochastic Inflows, 1341
- Modeling Indirect Statistics of Surface Roughness, 1266
- Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339
- Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Simulation of Highly Skewed Non-Gaussian Stochastic Processes, 427
- Stochastic Analysis of Internal Erosion in Soil Structures—Implications for Risk Assessments, 707

Stone columns

- Simplified Method for Consolidation Rate of Stone Column Reinforced Foundations, 625

Stones

- Effect of Treatments on Pore Network of Granites, 989

Storage

- Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709

Storage tanks

- Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Storm runoff

- Changes in Runoff due to Stormwater Management Pond Regulations, 810
- A Guide for Best Management Practice (BMP) Selection in Urban Developed Areas, 1588
- Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355

SUBJECT INDEX

Streams

Nature and Dynamics of Water Sediment Interface in Combined Sewers, 458

Normalized Antecedent Precipitation Index, 816

Storm surges

Coastal Engineering 2000, 1570

Storms

Climate-Biased Storm-Frequency Estimation, 805

Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399

Stormwater

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538

Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539

Training Artificial Neural Networks to Perform Rain-fall Disaggregation, 776

Stormwater management

Changes in Runoff due to Stormwater Management Pond Regulations, 810

Determining Urban Storm Water BMP Effectiveness, 1350

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Geographic Information Systems, Decision Support Systems, and Urban Storm-Water Management, 1352

A Guide for Best Management Practice (BMP) Selection in Urban Developed Areas, 1588

Hydrologic Design of Urban Flood Control Detention Ponds, 827

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

Infiltration Pond Design for Highway Runoff Treatment in Semiarid Climates, 557

Success Stories of Brevard County, Florida Stormwater Utility, 1356

Strain

Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100

Mexico City Soil Behavior at Different Strains: Observations and Physical Interpretation, 641

Strain distribution

Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315

Strain hardening

Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103

Strain measurement

Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315

Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125

Strain rate

Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135

Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102

Strain softening

Localization Issues in Force-Based Frame Elements, 1216

Strategic planning

Business Strategy: Ideas for Construction Master's Degrees, 920

Construction Management Practices Are Slowly Changing, 916

Improving Objectivity in Procurement Selection, 955

Strategic Management in Design Firms, 1054

Stratification

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695

Stratified flow

Mixing in Stratified Jets, 685

Stratigraphy

Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581

Stream channels

Laboratory Observations of Ice Jams in Channel Confluences, 130

Stream function

Design of Circular Infiltration Basin under Mounding Effects, 1342

Streamflow

Identifying Cause of Declining Flows in the Republican River, 1363

Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795

Pool Quality Index: New Method to Define Minimum Flow Requirements of High-Gradient, Low-Order Streams, 556

Power Distribution for Low Streamflows, 822

Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691

Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339

Sediment Pickup on Streamwise Sloping Beds, 860

Simple Method for Relating Local Stage and Remote Discharge, 781

Wave Scour around a Large Vertical Circular Cylinder, 1393

Streamflow forecasting

Development of Exceedance Probability Streamflow Forecast, 773

Streamflow generation models

Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795

Streamflow records

Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Streams

Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896

Modification of Canal Flow due to Stream-Aquifer Interaction, 719

Moment-Based Calculation of Parameters for the Storage Zone Model for River Dispersion, 709

Streets

Numerical Study on Flow over Buildings in Street Canyon, 475

Street Surface Storage for Control of Combined Sewer Surcharge, 1353

Strength

Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162

Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142

Experimental and Numerical Simulations of Jointed Rock Block Strength under Uniaxial Loading, 422

External FRP Post-Strengthening of Scaled Concrete Slabs, 150

Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162

Homogenization of Masonry Using Numerical Simulations, 328

In-Plane Analysis of Masonry Infill Materials, 1479

Interaction of Foundry Sands with Geosynthetics, 602

Masonry Failure Criterion under Biaxial Stress State, 974

Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116

Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

Strength and Stability of Steel Frames in Fire: Rankine Approach, 1126

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Strength Design of Steel I-Section Beams Curved in Plan, 1146

Withdrawal Strength of Threaded Nails, 1124

Stress

3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401

Direct Tensile Tests on Concrete-like Materials: Structural and Constitutive Behaviors, 320

Inelastic Large Deflection Modeling of Beam-Columns, 1172

Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148

Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116

Numerical Method for Lower-Bound Solution of the Rigid-Plastic Limit Analysis Problem, 404

Review of Water Ingress Characteristic of Stressed Masonry, 1011

Stress and Displacement around Elastic Artificial Rectangular Hole, 379

Stress analysis

Monitoring Two Tunnels, 1493

Stress Spikes in Pin and Hanger System of a Truss Bridge, 67

Stresses and Deformation of Buried Pipeline under Wave Loading, 1305

Stress concentration

High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164

Stress distribution

Circular Bars under Distributed Torques, 15

Stress Distribution at the Interface Corner of a Tri-Material Structure, 364

Stress history

Effects of Preloading on Brittle Solids, 279

Stress Spikes in Pin and Hanger System of a Truss Bridge, 67

Stress intensity factor

Fracture Mechanics of Marble Using a Splitting Tension Test, 1020

Stress Distribution at the Interface Corner of a Tri-Material Structure, 364

Stress measurement

Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108

Design Method of a Hanger System for Long-Span Suspension Bridge, 75

Stress strain curves

Complete Triaxial Stress-Strain Curves of High-Strength Concrete, 995

Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232

New Approach for Modeling Confined Concrete. I: Circular Columns, 1157

New Approach for Modeling Confined Concrete. II: Rectangular Columns, 1158

Stress strain relations

Behavior of a Loosely Compacted Unsaturated Volcanic Soil, 664

Characterization of Cemented Sand in Triaxial Compression, 648

Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070

Effects of Preloading on Brittle Solids, 279

Micromechanical Formulation of Macroscopic Structures in a Granular Medium, 393

Plasticity Model for Concrete under Triaxial Compression, 310

Simulated Micromechanical Models using Artificial Neural Networks, 362

Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077

Stress-Strain-Temperature Relationship for Structural Steel, 1016

Stress waves

Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278

Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346

Structural analysis

Combinatorial Representations in Structural Analysis, 195

Design Method of a Hanger System for Long-Span Suspension Bridge, 75

Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423

SUBJECT INDEX

Structural behavior

Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102

Structural control

Neural Networks for Multiobjective Adaptive Structural Control, 1095

Structural design

Ancient Concept, Modern Context, 1494

Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150

Design of Composite Surrogate Mirror Support Structure, 30

Framework for Finite-Element-Based Large Increment Method for Nonlinear Structural Problems, 363

Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081

Mile High Design, 1513

Reliability-Based Optimal Design of Series Structural Systems, 347

Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221

Transformable Structures Design Features and Preliminary Investigation, 39

US-Japan Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems (1st: 2000: Honolulu, Hawaii), 1619

Structural dynamics

Double-Modal Transformation and Wind Engineering Applications, 329

Quantification of Uncertainty in Structural Dynamic Models, 35

Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037

Structural elements

Pseudoforce Method for Nonlinear Analysis and Reanalysis of Structural Systems, 1138

Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080

Structural engineering

Delicate Procedure, 1507

Evolutionary Programming for Inverse Problems in Civil Engineering, 189

Guide to the Use of Wind Load Provisions of ASCE 7-98, 1589

A Structural Engineering Odyssey, 1612

Structural forms

Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100

Structural materials

Mile High Design, 1513

Seismic Fragility of RC Structural Walls: Displacement Approach, 1097

Structural members

Behavior and Modeling of Nonprismatic Members Having T-Sections, 1179

Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1

Shear Strength of Concrete-Encased Composite Structural Members, 1207

What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337

Structural reliability

Bridge Lifetime System Reliability under Multiple Limit States, 116

Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212

Random Field Modeling of Elastic Properties Using Homogenization, 281

Reliability-Based Optimal Design of Series Structural Systems, 347

Seismic Reliability of Masonry Infilled RC Frames, 1106

Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 1109

Structural response

Improving Structural Response to Permanent Ground Displacement, 1467

Structural safety

Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88

Considerations for Blast-Resistant Glazing Design, 47

Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212

Plastic Frame Analysis under Fire Conditions, 1105

Structural steels

Stress-Strain-Temperature Relationship for Structural Steel, 1016

Structural Steel Selection Considerations: A Guide for Students, Educators, Designers, and Builders, 1613

Structural strength

Post-Finite Element Prediction Strategies for Engineering Structures, 1228

Structure reinforcement

Construction and Materials Issues 2001, 1575

Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968

Pullout Tests on Deformed and Plain Rebars in Cement-Stabilized Rammed Earth, 1006

Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009

Structures

Micromechanics Formulation of Macroscopic Structures in a Granular Medium, 393

Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415

Near-Fault Ground Motion Effects on Simple Structures, 1185

Numerical Modeling of a Servohydraulic Testing System for Structures, 372

Reinforcement of Elastic Structures in the Presence of Imperfect Interfacial Bonding, 354

Struts

Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283

Students

Assessment of Communications and Collaborative Learning in Civil Engineering Education, 1064

Community Service Project Planning for ASCE Student Chapters/ Clubs, 1066

Hydraulic Design Example—Canal and Pipeline Inlet, 767

Mentoring, 933

Students

Students

- A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910
- Seven Keys to a Successful ASCE Student Chapter or Club: Guide for Student Leaders and Faculty Advisors, 1055
- What Do Students Need in Hydraulic Design Projects?, 760
- Studs**
- Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471
- Subcontractors**
- Asphalt Works Subcontracting Disputes in Large Construction Programs, 1038
- Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266
- Subcritical flow**
- Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682
- Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673
- Subgrades**
- Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286
- Submerged flow**
- Spatially Averaged Open-Channel Flow over Rough Bed, 680
- Submerged jets**
- Flapping Instability of Vertically Impinging Turbulent Plane Jets in Shallow Water, 327
- Submerging**
- Backward Flow Velocities of Submerged Hydraulic Jumps, 715
- Substructures**
- Alternate Substructure Systems for Standard Highway Bridges, 65
- Numerical Modeling of a Servohydraulic Testing System for Structures, 372
- Static Finite-Element Analysis of Bridge Fenders for Barge Impact, 1042
- Subsurface drainage**
- Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876
- Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855
- Drainage Reduction under Land Retirement over a Shallow Water Table, 854
- Modeling Soluble Phosphorus Desorption Kinetics in Tile Drainage, 865
- Subsurface flow**
- Design of Circular Infiltration Basin under Mounding Effects, 1342
- Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450
- Suburbs**
- Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297
- Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324

2001 ASCE TRANSACTIONS

- Subways**
- MSRP: Model for Station Rehabilitation Planning, 842
- Suction**
- Suction Removal of Sediment from between Armor Blocks, 696
- Sulfates**
- Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451
- Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584
- Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444
- Sulfides**
- Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535
- Sulfur**
- Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500
- Investigations of Sulfuric Acid Corrosion of Concrete. II: Electrochemical and Visual Observations, 501
- Sulfur dioxide**
- Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541
- Supercritical flow**
- Hydraulic Performance of Coanda-Effect Screens, 712
- Supercritical Flow in 45° Junction Manhole, 869
- Superstructures**
- Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81
- Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331
- Surcharge**
- Street Surface Storage for Control of Combined Sewer Surcharge, 1353
- Surf zone**
- Experiments with Groups of Breaking Waves. Part I: Short Wave Motion, 1402
- Hydrographic Surveying from Personal Watercraft, 1243
- Surface drainage**
- Functional Relationship to Describe Drains with Entrance Resistance, 903
- Surface Drainage for Slope Stabilization, 1615
- Surface finishing**
- Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44
- Surface irrigation**
- Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873
- Surface jets**
- Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280
- Surface properties**
- Empirical Method of Error Analysis in Volume Estimation: Monte Carlo Simulation under Kriging and Triangulation, 1247
- Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538

SUBJECT INDEX

Taiwan

Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p_s > 1.0$) Oxide-Coated Fixed Media, 539

Surface Cleanliness Effect on Lunar Soil Shear Strength, 604

Surface roughness

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

Cavitation Prevention with Roughened Surface, 750

Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585

Modeling Indirect Statistics of Surface Roughness, 1266

Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301

Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673

Surface runoff

Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811

Infiltration Pond Design for Highway Runoff Treatment in Semi-arid Climates, 557

Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803

Sprinkler Technologies, Soil Infiltration and Runoff, 887

Surface waters

Coming to the Surface, 1549

Decision Support System for Surface Water Planning in River Basins, 1366

Distributed System for Coastal Infrastructure Modeling and Assessment, 180

GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832

Hydrologic Assessment of Water Losses in River, 1336

Integrated Surface and Ground Water Management, 1593

Surface waves

Analytical Study of Porous Wave Absorber, 316

Flapping Instability of Vertically Impinging Turbulent Plane Jets in Shallow Water, 327

Surface-active agents

Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518

Organoclay with Soil-Bentonite Admixture as Waste Containment Barriers, 523

Surge

Channel Routing in Open-Channel Flows with Surges, 679

Surveys

Automated Least Squares Adjustment of Triangulation-Trilateration Figures, 1252

Mystery of the Missing Women Engineers: A Solution, 1057

Recruitment and Retention of Civil Engineers in Departments of Transportation, 911

Surveys, data collection

Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466

Suspended sediments

2D Unit Sediment Graph Theory, 789

Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340

Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708

Suspended solids

Conventional and AWT Mixed-Liquor Settling Characteristics, 460

Nature and Dynamics of Water Sediment Interface in Combined Sewers, 458

Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452

Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Suspension

Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720

Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495

Swales

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Sweden

Neural Networks as Routine for Error Updating of Numerical Models, 684

Swelling

Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621

Switzerland

Great Excavations, 1532

Symmetry

Accidental Torsion in Buildings: Analysis V's Earthquake Motions, 1127

Synthetic fibers

Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593

Synthetic materials

Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

System analysis

Planning for Civil Engineering Applications of Information Technology, 952

System reliability

Multiple Linearization Method for Nonlinear Reliability Analysis, 414

System Reliability-Based Configuration Optimization of Trusses, 1180

Taiwan

BOT Financial Model: Taiwan High Speed Rail Case, 236

Effects of Construction on Laterally Loaded Pile Groups, 605

Establishment and Maintenance of Taiwan Geodetic Datum 1997, 1251

Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354

Ground Response during Pile Driving, 656

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474

Tall structures

Gust Loading Factor: New Model, 1091

Tanks

Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200

TCE

Carbon Addition Reduced Lag Time for 2,4,6-Trichlorophenol Degradation, 524

Photocatalysis of TCA, TCE, and PCE in Flow-Through Reactor System, 506

Teaching methods

Bibliography for Teaching Hydraulic Design, 770

Development of a Teaching Tool for Building Construction, 38

Teaching Hydraulic Design Using Equation Solvers, 765

VIRCON: Interactive System for Teaching Construction Management, 218

Teamwork

Collective Excellence: Building Effective Teams, 1572

Effect of Interorganizational Teamwork on Project Outcome, 945

Understanding Psychological Type to Improve Project Team Performance, 944

Technology

25 Technologies to Watch, 1537

The AEC Dilemma—Exploring the Barriers to Change, 919

Technology transfer

Research versus Practice in Transportation Geotechnics: Can We Bridge the Chasm?, 1053

Telecommunication

High-Tech Isolation, 1514

Temperature

Characteristics of a Density Current in a Cooling Lake Sidearm, 272

Chlorine Dioxide Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 503

Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007

Temperature distribution

Cold-Air Distribution Comparison for Four Supply Air Diffusers, 37

Plastic Frame Analysis under Fire Conditions, 1105

Temperature effects

Bioremediation Kinetics of Crude Oil at 5° C, 531

Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pu/Al_2O_3 Catalyst, 483

Effect of Temperature on Ozone Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 486

High-Temperature Compressive Strength of Steel Fiber High-Strength Concrete, 998

Numerical Methodology in Fatigue Analysis: Applications, 1260

Residual Stresses in Heat-Straightened Steel Members, 969

Stress-Strain-Temperature Relationship for Structural Steel, 1016

Temperature measurement

Plastic Frame Analysis under Fire Conditions, 1105

Tendons

Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118

Tensile Behavior of FRP Tendons for Prestressed Ground Anchors, 152

Tennessee

Closing the Gap, 1556

Tennessee Valley Authority

Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347

Tensile loads

Mechanical Behavior of CFRP Rod Anchors under Tensile Loading, 157

Tensile strength

Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103

Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302

Fracture Properties of High-Strength Concrete, 978

Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077

Tensile Behavior of FRP Tendons for Prestressed Ground Anchors, 152

Tensile stress

Experimental Methods for Estimating In Situ Tensile Force in Tie Rods, 426

Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346

Tension

Decomposition of Damage Tensor in Continuum Damage Mechanics, 386

Fracture Analysis of High Strength Concrete Members, 992

Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal L-g Tension, 1143

Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076

Terminal facilities

MSRP: Model for Station Rehabilitation Planning, 842

Terrain

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804

Terrain models

Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188

Review of Automated Floodplain Delineation from Digital Terrain Models, 1378

SUBJECT INDEX

Thin wall structures

Transformation of Ellipsoid Heights to Local Leveling Heights, 1249

Terrorism

September Eleventh, The Days After, The Days Ahead, 1553

Tests

3D Analytic Model for Testing Numerical Tidal Models, 734

Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements, 996

Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144

Damage Quantification in Metal Matrix Composites, 311

Draining in a New Direction, 1524

Evaluation of Drug Testing in the Workplace: Study of the Construction Industry, 263

Full-Scale Field Failure Tests of Railway Bridge, 98

Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123

Going Against the Grain, 1547

Ice Rubble Behavior in Punch Tests, 136

Numerical Studies on Smoke Filling Process in an Airport Terminal, 46

Response of Laterally Loaded Large-Diameter Bored Pile Groups, 630

SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654

Test of Recycled Concrete Aggregate in Accelerated Test Track, 1316

Testing and Analysis of Steel Pipe Segments, 1306

Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009

Time-Dependent Creep Behavior of Particulate Materials, 997

Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410

Texas

Airport on the Move, 1541

Assessing Water Availability under a Water Rights Priority System, 1362

Bending Fatigue of Cable Stays, 126

Coming to the Surface, 1549

Dual Benefits, 1542

Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387

Incorporating Uncertainty and Multiple Objectives in Real-Time Route Selection, 1322

Live Load Tests of the San Antonio "Y", 119

Stronger Longer, 1508

Thailand

Reservoir Release Policy for Large Irrigation System, 897

Rethinking Bangkok's Wastewater Strategy, 1521

Thawing

Simplified Method to Assess Freeze-Thaw Durability of Soil Cement, 1000

Theories

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367

Theory and Full-Bridge Modeling of Wind Response of Cable-Supported Bridges, 99

Thermal analysis

Thermal Treatment of Polyethylene in System Containing Hydrogen Chloride, 439

Thermal convection

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

Thermal factors

Identification and Quantification of Environmental Issues of Aging Coal-Based Power Plant—Case Study, 277

Thermal Cracking of Viscoelastic Asphalt-Concrete Pavement, 358

Thermally Enhanced Vapor Extraction for Removing PAHs from LampBlack-Contaminated Soil, 554

Thermomechanical Behavior of Thermoviscoelastic Solid during Dynamic Crack Propagation, 355

Thermal pollution

Environmental Comfort Criteria: Weighting and Integration, 1044

Expert System for Environmental Quality Evaluation, 1045

Thermal stresses

Heat Conduction Waves in Bilayer Cement Concrete Structures, 417

Thermodynamics

Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438

Hysteretic Systems with Internal Variables, 380

New General Pore Size Distribution Model by Classical Thermodynamics, Application: Activated Carbon, 464

Thermomechanical Behavior of Thermoviscoelastic Solid during Dynamic Crack Propagation, 355

Thickness

Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Hydraulic Roughness of Breakup Ice Jams, 727

Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390

Thin shell structures

Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17

Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18

Thin wall sections

Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149

Thin wall structures

Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200

Contemporary and Traditional Wall-System Failures, 1035

Seismic Design Method for Thin-Walled Steel Frame Structures, 1087

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367

Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368

Three-dimensional analysis

Stability Analysis of Box-Girder Cable-Stayed Bridges, 62

Three-Dimensional Analysis of Performance of Laterally Loaded Sleeved Piles in Sloping Ground, 616

Three-dimensional flow

Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745

Experiments on Flow at a 90° Open-Channel Junction, 700

Three-dimensional models

3D Analytic Model for Testing Numerical Tidal Models, 734

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

Modeling Three-Dimensional Timber Light-Frame Buildings, 1175

Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256

Refined Global Approximation Theory of Multilayered Plates and Shells, 292

Sediment Diversion through Irrigation Outlets, 859

Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377

Three-Dimensional Ecological-Eutrophication Model for Singapore, 546

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

Three-Dimensional Micromechanics-Based Constitutive Framework for Analysis of Pultruded Composite Structures, 361

Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382

Three-Dimensional Modeling of Anchorage Zones in Reinforced Concrete, 357

Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371

Visualizing Simulated Construction Operations in 3D, 210

Tidal currents

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Numerical Modeling of Tide-Induced Currents in Thane Creek, West Coast of India, 1407

Tides

3D Analytic Model for Testing Numerical Tidal Models, 734

Evaluation of Numerical Models of Flood and Tide Propagation in Channels, 744

Mesoscale Model for Morphologic Change at Tidal Inlets, 1412

Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743

Numerical Modeling of Tide-Induced Currents in Thane Creek, West Coast of India, 1407

Ties

Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283

Tiles

Drainage Reduction under Land Retirement over a Shallow Water Table, 854

Timber construction

The Case of a Broken Plank, 1040

Cyclic Analysis of Wood Shear Walls, 1123

Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Time dependence

Realistic Long-Term Prediction of Prestress Forces in PSC Box Girder Bridges, 1198

Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775

Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286

Time-Dependent Creep Behavior of Particulate Materials, 997

Time-Dependent Particle Transport through Granular Filters, 618

Time-Dependent Poromechanical Responses of Saturated Cylinders, 325

Time factors

Financing Infrastructure over Time, 1333

Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986

Time-Overrun Factors in Nigerian Construction Industry, 261

Work-Time Model for Engineers, 230

Time series analysis

Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735

Effect of Short-Term Memory on Hurst Phenomenon, 788

Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Timing

Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294

Toll roads

A Contribution to the Development of Guidelines for Toll Plaza Design, 1280

Modeling Traffic Delays at Northern New York Border Crossings, 1323

Tolls

Analyzing Performance of ETC Plazas Using New Computer Software, 206

Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296

Topography

Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396

Finite Volume Model for Nonlevel Basin Irrigation, 885

SUBJECT INDEX

Torsion

- Accidental Torsion in Buildings: Analysis V's Earthquake Motions, 1127
- Circular Bars under Distributed Torques, 15
- Nonuniform Torsion of Composite Bars by Boundary Element Method, 387
- Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283
- Torsional Stiffness of Multicell Hollow Sections, 1469

Toughness

- Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001

Towers

- Control of Wind-Excited Truss Tower using Semiactive Friction Damper, 1170
- Design and Construction of High Multitier Shoring Towers: Case Study, 223
- Fatigue Reliability Analysis of Microwave Antenna Towers due to Wind, 1211
- Wind Pressures on End-Cell-Induced Vibration of Circular Tower, 411

Towing

- Control Alternatives at a Waterway Lock, 1389
- Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Toxic wastes

- Class A Pathogen Reduction in the SSDML Process, 1446
- Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations, 132

Toxicity

- Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562
- Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458
- Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pt/Al_2O_3 Catalyst, 483
- pH-Stat Titration to Assess Nitrification Inhibition, 515
- Phytoremediation Potential and Toxicity of Barium to Three Freshwater Microalgae: *Scenedesmus subspicatus*, *Selenastrum capricornutum*, and *Nannochloropsis sp.*, 1461
- Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372

Tracers

- Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450
- New Parameters for Solution of Two-Well Dispersion Problem, 793
- Transition to Self-Similarity of Diffusion of Tracer in Turbulent Patch, 406

Tractive forces

- Grass-Lined Channels, 690

Traffic

- Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55
- Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307

Traffic accidents

- Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320
- Impact of Road Conditions on Elderly Drivers, 1284

- Rental Cars Unique Accident Trends, 1275

- Risk and Impact of Natural Hazards on a Road Network, 1273

- Rule-Based Model for Traffic Accident Visualization and Analysis, 187

- Snow Event Effects on Interstate Highway Crashes, 141

Traffic analysis

- Empirical Freeway Queuing Duration Model, 1255
- Evaluation of Roundabout Performance Using SIDRA, 1271
- Impacts of Analysis Zone Structures on Modeled Statewide Traffic, 1257
- Stability and Performance of Car-Following Models in Congested Traffic, 1254
- Statistical and Genetic Algorithms Classification of Highways, 1283

Traffic congestion

- Empirical Freeway Queuing Duration Model, 1255
- Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281
- Stability and Performance of Car-Following Models in Congested Traffic, 1254

Traffic control devices

- Transportation Engineering Basics, 1616

Traffic delay

- Empirical Freeway Queuing Duration Model, 1255
- Modeling Traffic Delays at Northern New York Border Crossings, 1323
- Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318
- Optimal Work Zone Lengths for Four-Lane Highways, 1269
- Transportation Engineering Basics, 1616

Traffic engineering

- Analysis of Time Headways on Urban Roads: Case Study from Riyadh, 1290
- Transportation Engineering Basics, 1616

Traffic flow

- Analysis of Time Headways on Urban Roads: Case Study from Riyadh, 1290
- Risk and Impact of Natural Hazards on a Road Network, 1273
- Stability and Performance of Car-Following Models in Congested Traffic, 1254

- Stochastic Model for Multilane Traffic Effects on Bridges, 71

Traffic management

- Capacity of Shared Left Turn Lanes—A Comparative Analysis, 1270
- Empirical Freeway Queuing Duration Model, 1255

Traffic models

- Impacts of Analysis Zone Structures on Modeled Statewide Traffic, 1257
- Stochastic Model for Multilane Traffic Effects on Bridges, 71

Traffic safety

- Evaluating Safety of Urban Arterial Roadways, 1272
- Impact of Road Conditions on Elderly Drivers, 1284
- Required Stopping Sight Distance on Crest Vertical Curves, 1288

Traffic safety

Traffic signals

Traffic signals

Capacity of Shared Left Turn Lanes—A Comparative Analysis, 1270

Damping of Cantilevered Traffic Signal Structures, 1240

Evaluating Reliability of TRANSYT-7F Optimization Schemes, 1295

Evaluation of Roundabout Performance Using SIDRA, 1271

New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203

Traffic signs

New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203

Required Stopping Sight Distance on Crest Vertical Curves, 1288

Transportation Engineering Basics, 1616

Traffic speed

Calibration-Free Arterial Link Speed Estimation Model Using Loop Data, 1319

Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293

Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256

Traffic volume

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308

Empirical Freeway Queuing Duration Model, 1255

Training

Bibliography for Teaching Hydraulic Design, 770

Community Emergency Response Training (CERTs): A Recent History and Review, 1426

Effectiveness of the MCAA's Project Management Course, 1065

Innovations and Best Practices: Leadership Development and Retention, 912

New Engineer Training at Bureau of Reclamation, 762

Transcritical flow

Channel Routing in Open-Channel Flows with Surges, 679

Transfer functions

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

Transformations

Double-Modal Transformation and Wind Engineering Applications, 329

Rule of Equivalent States in Limit-State Analysis of Soils, 578

Transient flow

Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714

Transient loads

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Transmission lines

Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994

2001 ASCE TRANSACTIONS

Transpiration

Model for Estimating Evaporation and Transpiration from Row Crops, 901

Transport phenomena

General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Transportation

External Costs of Air Emissions from Transportation, 836

Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564

Multiobjective Transportation Planning for Waste Hauling, 485

Peer Review to Enhance State Transportation Research Program, 918

Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Transportation engineering

Transportation Engineering Basics, 1616

Transportation management

Linear Reference System for Life-Cycle Integration, 182

Transportation models

Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279

Transportation networks

How Park-and-Ride Schemes Can Be Successful in Eastern Asia, 1328

Transportation planning

Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324

Impacts of Analysis Zone Structures on Modeled Statewide Traffic, 1257

Intermodal Innovation, 1505

Tool for Rural and Statewide Multimodal Transportation Planning, 204

Transportation Engineering Basics, 1616

Transportation studies

Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274

Transportation systems

BOT Financial Model: Taiwan High Speed Rail Case, 236

Estimating Technical and Scale Inefficiencies of Public Transit Systems, 1276

Genetic Algorithm Approach for Transit Route Planning and Design, 1278

High-Performance Highway, 1483

Intermodal Innovation, 1505

Transverse loads

Response of Prestressed Concrete I-Girder Bridges to Live Load, 54

Transverse shear

Refined Global Approximation Theory of Multilayered Plates and Shells, 292

Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079

SUBJECT INDEX

Travel demand

Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Travel time

Calibration-Free Arterial Link Speed Estimation Model Using Loop Data, 1319

Predicting River Travel Time from Hydraulic Characteristics, 753

Transportation Engineering Basics, 1616

Trees

Landfill Capping with a Woodland Ecosystem, 1459

Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838

Trenches

Sediment Transport and Backfilling of Trenches in Oscillatory Flow, 1411

Trenchless technology

Applications of Horizontal Characterization Techniques in Trenchless Construction, 268

Excavation of Surface Installed Pipeline, 849

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Standard Construction Guidelines for Microtunneling, 1607

Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610

Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611

Triangulation

Automated Least Squares Adjustment of Triangulation-Trilateration Figures, 1252

Triaxial compression

Characterization of Cemented Sand in Triaxial Compression, 648

Triaxial loads

Fabric Evolution of Ellipsoidal Arrays with Different Particle Shapes, 394

Triaxial tests

Analysis of Shear Banding in True Triaxial Tests on Sand, 366

Complete Triaxial Stress-Strain Curves of High-Strength Concrete, 995

Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

Plasticity Model for Concrete under Triaxial Compression, 310

Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261

Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365

Triaxial Tests of Fiber-Reinforced Concrete, 1012

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Trickle irrigation

New Algorithm for Hydraulic Calculation in Irrigation Laterals, 890

Tunneling

Tricking filters

Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548

Review of Two Decades of Experience with TF/SC Process, 476

Trucks

Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265

Comparison of Two Approaches for Modeling Freight Movement at Seaports, 205

Dust Suppression Using Truck-Mounted Water Spray System, 216

Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55

Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125

Vehicle Dynamics Model for Predicting Maximum Truck Acceleration Levels, 1307

Trusses

Behavior of Steel Box Girders with Top Flange Bracing, 2

Combinatorial Representations in Structural Analysis, 195

Control of Wind-Excited Truss Tower using Semiactive Friction Damper, 1170

Fuzzy Multistage Optimization of Large-Scale Trusses, 1225

Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125

System Reliability-Based Configuration Optimization of Trusses, 1180

Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283

Tube joints

Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085

Tubes

Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16

Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125

Tests of X- and K-Joints in CHS Stainless Steel Tubes, 1206

Tests of X- and K-Joints in SHS Stainless Steel Tubes, 1205

Tunnel construction

Big Tunnels in Bad Rock, 635

Hong Kong Experience in Managing BOT Projects, 229

Shotcrete for Underground Support VIII, 1604

Tunnel with Vision, 1492

Tunneling with Care, 1557

Tunnel linings

Buckling of Cylindrical Tunnel Liners, 317

Monitoring Two Tunnels, 1493

Shotcrete for Underground Support VIII, 1604

Tunnel supports

Shotcrete for Underground Support VIII, 1604

Tunneling

Monitoring Two Tunnels, 1493

Tunneling System for the South Pole, 142

Tunneling

Tunneling with Care, 1557

Tunnels

Analytical Solutions for Shallow Tunnels in Saturated Ground, 424

Big Tunnels in Bad Rock, 635

Hydraulic Characteristics of Multistage Orifice Tunnels, 729

Life at the End of the Tunnel, 1512

Pushing Back, 1523

Transporting Hong Kong, 1490

Turbidity

Impact of Turbidity Currents on Reservoir Sedimentation, 670

Turbine discharges

Turbine Discharge Measurement by the Velocity-Area Method, 738

Turbulence

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687

Cavitation Prevention with Roughened Surface, 750

Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756

Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280

Mean Flow and Turbulence in Open-Channel Bend, 746

Mean Flow and Turbulence Structure of Open-Channel Flow through Non-Emergent Vegetation, 704

Measurements of Turbulence Generated by Oscillating Grid, 686

Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301

Turbulence Intensities of Shallow Rain-Impacted Flow over Rough Bed, 751

Turbulent flow

Aspects of Inlet Boundary Prescription for a Turbulent Flow Field, 733

EDR in Circular Channels, 870

Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416

Risk of Sediment Erosion and Suspension in Turbulent Flows, 689

Spatially Averaged Open-Channel Flow over Rough Bed, 680

Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Unsteady Friction in Rough Pipes, 723

Two layer soil system

Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790

Two phase flow

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

Two-Phase Flow Analysis of Concentration Profiles, 739

2001 ASCE TRANSACTIONS

Two-dimensional

Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803

Two-dimensional flow

Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Two-Dimensional Flood Plain Flow. I: Model Description, 818

Two-Dimensional Flood Plain Flow. II: Model Validation, 819

Two-dimensional models

Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736

Ultimate loads

Adaptive FE Analysis of RC Shells. II: Applications, 419

Failure Study of an Aluminum Bridge Deck Panel, 1039

Ultimate strength

Ultimate Behavior of Bolted T-Stubs. I: Theoretical Model, 1151

Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152

Ultimate Response of RC Beams Strengthened with CFRP Plates, 156

Ultra-sonic tests

Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293

The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

Ultraviolet radiation

Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543

Uncertainty analysis

Quantification of Uncertainty in Structural Dynamic Models, 35

Reliability, Risk, and Uncertainty Analysis Using Generic Expectation Functions, 547

Uncertainty Assessment of Regionalized Flood Frequency Estimates, 825

Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379

Uncertainty in Mechanics Problems—Interval-Based Approach, 341

Undergraduate study

Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763

Underground conduits

Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4

Underground storage

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Underground structures

Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046

The Long Arch, 1511

SUBJECT INDEX

Urban transportation

Underwater pipelines

Stresses and Deformation of Buried Pipeline under Wave Loading, 1305

Underwater structures

Underwater Investigation Standard Practice Manual, 1617

Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381

Uniaxial tensile strength

Mode I Fracture Behavior in Concrete: Nonlocal Damage Modeling, 356

Uniform flow

Design of Minimum Seepage-Loss Nonpolygonal Canal Sections, 871

United Kingdom

Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994

Field Applications of a Variable-Parameter Muskingum Method, 796

London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104

New Project Procurement Process, 962

Ties to Excellence, 1497

Turning with the Wind, 1525

Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400

United States

150 Years of Civil Engineering in the United States of America, 1063

Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994

Evapotranspiration Intensifies over the Conterminous United States, 1373

Losses from Weather Extremes in the United States, 1432

Modeled Areal Evaporation Trends over the Conterminous United States, 882

Rebuilding America's Infrastructure, 1540

Unsaturated flow

Design of Circular Infiltration Basin under Mounding Effects, 1342

Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790

Unsaturated-Flow Simulation with Green Element Models, 697

Unsaturated soils

Behavior of a Loosely Compacted Unsaturated Volcanic Soil, 664

Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497

Unsaturated Particulate Materials—Particle-Level Studies, 579

Unsteady flow

Channel Routing in Open-Channel Flows with Surges, 679

DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703

Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702

Fractional-Step Method Solution of Diffusive Wave Equation, 772

Rational Criterion for Designing Opening of Slit-Check Dam, 677

Uranium

Uranium Speciation, Plant Uptake, and Phytoremediation, 1454

Urban areas

Analysis of Time Headways on Urban Roads: Case Study from Riyadh, 1290

Are Best-Management-Practice Criteria Really Environmentally Friendly?, 1351

Determining Urban Storm Water BMP Effectiveness, 1350

DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703

Evaluating Safety of Urban Arterial Roadways, 1272

Geographic Information Systems, Decision Support Systems, and Urban Storm-Water Management, 1352

Hydrologic Design of Urban Flood Control Detention Ponds, 827

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

Modeling Noise at Elevated Highways in Urban Areas: A Practical Application, 1335

New Results and Research Needs on Sediment Movement in Urban Drainage, 1357

Numerical Study on Flow over Buildings in Street Canyon, 475

Parking Facilities in Urban Areas: Air and Noise Impacts, 1325

Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372

Rational Hydrograph Method for Small Urban Watersheds, 814

Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843

Tool for Rural and Statewide Multimodal Transportation Planning, 204

Urban development

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Urban planning

Genetic Algorithm Approach for Transit Route Planning and Design, 1278

Urban Planning Using Augmented Reality, 1331

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Urban runoff

A Guide for Best Management Practice (BMP) Selection in Urban Developed Areas, 1588

Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811

Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355

Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743

Nature and Dynamics of Water Sediment Interface in Combined Sewers, 458

Urban Drainage Modeling, 1618

Urban transportation

Impacts of Analysis Zone Structures on Modeled Statewide Traffic, 1257

Urban transportation

Model for Determining Optimum Bus-Stop Spacing in Urban Areas, 1277

Moving Through the Millennium: Automated People Movers VIII, 1598

Urbanization

Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337

U.S. Geological Survey

Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691

Utah

Lime Cement Column Ground Stabilization for I-15 in Salt Lake City, 1472

Utilities

Building Energy Management as a Continuous Quality Control Process, 49

Vacuum

Surface Cleanliness Effect on Lunar Soil Shear Strength, 604

Vadose zone

Experimental Validation and Applications of a Fluid Infiltration Model, 449

Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433

Validation

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

Two-Dimensional Flood Plain Flow. II: Model Validation, 819

Value engineering

Value Engineering and Optimal Building Projects, 42

Vanes

Use of Vanes for Control of Scour at Vertical Wall Abutments, 741

Vapor

Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655

Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548

Vapor pressure

Effects of Biomass Growth on Gas Pressure Drop in Biofilters, 477

Role of Air Pressure in Drying of Weakly Permeable Materials, 344

Thermally Enhanced Vapor Extraction for Removing PAHs from LampBlack-Contaminated Soil, 554

Variability

Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533

Vector analysis

Damage Diagnosis Using Experimental Ritz Vectors, 416

Quantify Doublet Vector Distribution of Granular Materials, 360

Vegetation

Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458

Expansive Clay Soils and Vegetative Influence on Shallow Foundations, 1583

2001 ASCE TRANSACTIONS

Mean Flow and Turbulence Structure of Open-Channel Flow through Non-Emergent Vegetation, 704

Measuring Phytoremediation Parameters for Volatile Organic Compounds: Focus on MTBE, 1453

Plant Uptake of Methyl tert-Butyl Ether (MTBE) from Ground Water, 1455

Uranium Speciation, Plant Uptake, and Phytoremediation, 1454

Vegetative cover

Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340

Land Cover Change and Its Impact on Soil-Moisture-Field Evolution, 823

Landfill Capping with a Woodland Ecosystem, 1459

Natural Covers for Landfills and Buried Waste, 525

Rain Catch under Wind and Vegetal Cover Effects, 774

Vehicle usage

Effect of Vehicles' Suspension on Highway Horizontal Curve Design, 1264

Stability and Performance of Car-Following Models in Congested Traffic, 1254

Vehicles

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

Comparison and Performance Evaluation of Models Used for Vehicular Pollution Prediction, 494

Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Modeling Indirect Statistics of Surface Roughness, 1266

Modeling Municipal Solid Waste Collection Systems Using Derived Probability Distributions. I: Model Development, 559

Parking Facilities in Urban Areas: Air and Noise Impacts, 1325

Regularization in Moving Force Identification, 294

Response of Timber Bridge to Traffic Loading, 63

Space Transfer-Vehicle Concept for Deploying Solar-Power Satellites, 24

State-Specific Vehicle Noise Emission Characteristics, 1321

Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037

Velocity

Asymmetric Low-Velocity Impact of a Finite Layer, 336

Backward Flow Velocities of Submerged Hydraulic Jumps, 715

Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a $PuAl_2O_3$ Catalyst, 483

Characteristics of a Density Current in a Cooling Lake Sidearm, 272

Critical Flow Velocity in Slurry Transporting Horizontal Pipelines, 740

Deflecting Velocity Rod for Flow Measurements in Small Channels, 898

Effect of Particle Shape on Fall Velocity of Angular Particles, 748

Large-Eddy Simulation of Sediment Transport: Currents over Ripples, 708

Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691

SUBJECT INDEX

- Probabilistic Framework for Liquefaction Potential by Shear Wave Velocity, 632
- Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395
- Turbine Discharge Measurement by the Velocity-Area Method, 738
- Velocity distribution**
- Spatially Averaged Open-Channel Flow over Rough Bed, 680
- Velocity profile**
- Measurements of Turbulence Generated by Oscillating Grid, 686
- Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714
- Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301
- Ventilation**
- Numerical Studies on Smoke Filling Process in an Airport Terminal, 46
- Verification**
- Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413
- Vermont**
- Modeling the Effects of Tripton on Water Clarity: Lake Champlain, 1361
- Vertical cylinders**
- Wave Scour around a Large Vertical Circular Cylinder, 1393
- Vertical drains**
- Simple Method of Modeling PVD-Improved Subsoil, 659
- Vertical forces**
- Vertical Yield Stress of Pisa Clay from Piezocone Tests, 652
- Vertical loads**
- Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 323
- Vertical oscillations**
- Measurements of Turbulence Generated by Oscillating Grid, 686
- Vibration**
- Bending Fatigue of Cable Stays, 126
- Ground Response during Pile Driving, 656
- Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405
- London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104
- Multiobjective Optimal Structural Vibration Control Using Fuzzy Logic Control System, 1224
- Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037
- Wind Pressures on End-Cell-Induced Vibration of Circular Tower, 411
- Vibration control**
- Control of Wind-Excited Truss Tower using Semiactive Friction Damper, 1170
- Good Vibrations, 1562
- Suspension Bridge Flutter for Girders with Separated Control Flaps, 74

Volcanic ash

- Vibration measurement**
- Ambient Vibration of Long-Span Cable-Stayed Bridge, 60
- Vibration response**
- Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307
- Vibration tests**
- Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090
- Virginia**
- Field Test of Grassed-Swale Performance in Removing Runoff Pollution, 1354
- Parkway Payoff, 1564
- The Pentagon Project, 1516
- Viscoelasticity**
- 1D Time-Domain Solution for Seismic Ground Motion Prediction, 574
- Experimental Characterization of Viscoelastic Materials as Vibration Dampers, 389
- Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970
- Viscoplasticity**
- 1D Numerical Model of Muddy Subaqueous and Subaerial Debris Flows, 758
- Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381
- Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342
- Viscosity**
- Mean Flow and Turbulence Structure of Open-Channel Flow through Non-Emergent Vegetation, 704
- Visual aids**
- Rule-Based Model for Traffic Accident Visualization and Analysis, 187
- Void ratio**
- Quantifying Void Ratio in Granular Materials using Voronoi Tessellation, 199
- Voids**
- Decomposition of Damage Tensor in Continuum Damage Mechanics, 386
- Volatile organic chemicals**
- Effects of Surface Characteristics of Activated Carbons on VOC Adsorption, 477
- Energy-Effectiveness of Nonthermal Plasma Reactors for Toluene Vapor Destruction, 509
- Gas-Liquid Mass Transfer along Small Sewer Reaches, 482
- Load Dampening System for Vapor Phase Bioreactors, 457
- Mathematical Model of Biofiltration of VOCs: Effect of Nitrate Concentration and Backwashing, 510
- Measuring Phytoremediation Parameters for Volatile Organic Compounds: Focus on MTBE, 1453
- VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463
- Volatile Organic Compound (VOC) Transport through Compacted Clay, 582
- Volcanic ash**
- Behavior of a Loosely Compacted Unsaturated Volcanic Soil, 664

Volcanic ash

Estimation of Volcanic Hazards from Tephra Fallout, 1424

Risk and Impact of Natural Hazards on a Road Network, 1273

Volcanoes

Can This Town Survive? Case Study of a Buried Philippine Town, 1428

Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427

Volume measure

Empirical Method of Error Analysis in Volume Estimation: Monte Carlo Simulation under Kriging and Triangulation, 1247

Volumetric Study of Reflected Glare from Glass Curtain Walls of Buildings, 48

Volumetric strain

Effect of Desiccation on Compacted Natural Clays, 577

Role of Microscopic Physicochemical Forces in Large Volumetric Strains for Clay Sediments, 359

Vortices

Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745

Wakes

Wavelet Transform Analysis of Open Channel Wake Flows, 285

Walkways

Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324

Walls

3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401

Analytical Model for Predicting Shear Strength of Squat Walls, 1074

Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590

Contemporary and Traditional Wall-System Failures, 1035

Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403

Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162

Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471

Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197

Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075

Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137

Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

RC Structural Walls Designed According to UBC and Displacement-Based Methods, 1131

Strengthening of Unreinforced Masonry Walls Using FRPs, 151

Study of Noise Barrier Life-Cycle Costing, 1282

Washington

Damage Report from Seattle, 1522

Design-Builder Selection for Small Highway Projects, 964

A Glass Act, 1482

2001 ASCE TRANSACTIONS

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

In the Wake of Tacoma: Suspension Bridges and the Quest for Aerodynamic Stability, 1592

Tied by Water, 1488

Washington, D.C.

Native American Imprint, 1543

Waste disposal

Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Strategy for Landfill Design in Arid Regions, 1441

Waste management

Strategy for Landfill Design in Arid Regions, 1441

Waste site cleanup

Groundwater Contamination by Organic Pollutants, 1587

Waste sites

Use of Belief Function in Brownfield Infrastructure Redevelopment Decision-Making, 1332

Waste storage

Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Waste treatment

Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327

Evaluation of Slip Feed System for Vapor-Phase Bioreactors, 553

Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations, 132

Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511

Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450

Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480

Wasteload allocation

Waste-Load Allocation Using Genetic Algorithms, 1348

Wastewater

Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505

Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462

Overinvestment When Allocating Costs of Wastewater Treatment Plant, 1371

Rethinking Bangkok's Wastewater Strategy, 1521

Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533

Wastewater disposal

Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430

Wastewater management

Supercritical Flow in 45° Junction Manhole, 869

Wastewater treatment

Acidification of Lactose in Wastewater, 532

SUBJECT INDEX

Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561
Automatic Start-Up of UASB Reactors, 478
Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505
Conventional and AWT Mixed-Liquor Settling Characteristics, 460
Diagnosing Upsets in Anaerobic Wastewater Treatment Using Bayesian Belief Networks, 467
Effects of Operating Parameters in Tubular Ultrafiltration, 465
Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454
Ion Exchange of Ammonium in Zeolites: A Literature Review, 512
Modeling Biofilms on Gas-Permeable Supports: Flux Limitations, 445
Nitrification/Denitrification in Intermittent Aeration Process for Swine Wastewater Treatment, 516
Operation of Full-Scale Oily Wastewater Treatment System, 1451
Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552
Precipitative Removal of Fluoride from Electronics Wastewater, 542
Rethinking Bangkok's Wastewater Strategy, 1521
Review of Two Decades of Experience with TF/SC Process, 476
Rotating-Perforated-Tubes Biofilm Reactor for High-Strength Wastewater Treatment, 550
Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461
Taking Treatment to the Extremes, 1550
Water
Enhancing Water Resistance of Cement and Gypsum-Cement Materials, 1013
Water balance
Identifying Cause of Declining Flows in the Republican River, 1363
Water Budget and Vertical Conductance for Magnolia Lake, 797
Water circulation
Role of Bed Discordance at Asymmetrical River Confluences, 701
Water conservation
Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semiarid Areas, 900
Water content
Effect of Desiccation on Compacted Natural Clays, 577
Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135
Multidimensional Infiltration with Arbitrary Surface Fluxes, 905
Water demand
Coming to the Surface, 1549
Exploring All Options, 1533
Water depth
EDR in Circular Channels, 870
Water discharge
Comparison of Models for Computing Drainage Discharge, 904

Water pipelines

Determination of Component of Ground-Water Flow from Rainfall Data, 801
Functional Relationship to Describe Drains with Entrance Resistance, 903
Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829
Water distribution
Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359
Calibration Assessment and Data Collection for Water Distribution Networks, 693
Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183
Hydraulic Infrastructures Design Using Simulated Annealing, 839
Modeling Water Distribution for Irrigation Machine with Small Spray Nozzles, 877
Water Distribution Network Renewal Planning, 175
Water flow
Turbulence Intensities of Shallow Rain-Impacted Flow over Rough Bed, 751
Water hammer
Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714
Water infiltration
Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791
Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880
Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44
Review of Water Ingress Characteristic of Stressed Masonry, 1011
Water jets
Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280
Water level fluctuations
Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381
Water levels
Flap Gate Design for Automatic Upstream Canal Water Level Control, 867
Water loss
Hydrologic Assessment of Water Losses in River, 1336
Water management
Assessing Water Availability under a Water Rights Priority System, 1362
Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566
Decision Support System for Surface Water Planning in River Basins, 1366
Exploring All Options, 1533
Integrated Surface and Ground Water Management, 1593
Modeling Klamath River System Operations for Quantity and Quality, 1367
River Basin Network Model for Integrated Water Quantity/Quality Management, 1414
Water pipelines
Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183

Water pipelines

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848

Water pollution

Photosynthesis of TCA, TCE, and PCE in Flow-Through Reactor System, 506

Phytoremediation Potential and Toxicity of Barium to Three Freshwater Microalgae: *Scenedesmus subspicatus*, *Selenastrum capricornutum*, and *Nannochloropsis* sp., 1461

Water pollution control

Waste-Load Allocation Using Genetic Algorithms, 1348

Water pressure

Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892

Water quality

Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566

Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876

Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495

Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695

Evaluation of Drinking Water Biostability Using Biofilm Methods, 479

Field Experiments to Determine Gas Transfer at Gated Sills, 747

Finite Fourier Probability Distribution and Applications, 826

Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semiarid Areas, 900

Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355

Modeling Klamath River System Operations for Quantity and Quality, 1367

Modeling the Effects of Tripton on Water Clarity: Lake Champlain, 1361

Operation of Full-Scale Oily Wastewater Treatment System, 1451

Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848

Predicting the Formation of Chlorinated and Brominated By-Products, 490

River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128

Simulating Mobile Populations in Aquatic Ecosystems, 1377

Three-Dimensional Ecological-Eutrophication Model for Singapore, 546

Unsteady-State Inverse Chlorine Modeling in Pipe Networks, 730

Urban Drainage Modeling, 1618

Water quality control

Comprehensive Transboundary International Water Quality Management Agreement, 1574

A Guide for Best Management Practice (BMP) Selection in Urban Developed Areas, 1588

A Natural Approach, 1526

Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379

2001 ASCE TRANSACTIONS

Water quality standards

Tied by Water, 1488

Water reclamation

Big Screen Debut, 1551

Water resources

Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452

Water resources management

Are Best-Management-Practice Criteria Really Environmentally Friendly?, 1351

Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566

Comprehensive Transboundary International Water Quality Management Agreement, 1574

Exploring All Options, 1533

Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347

Integrated Hydrologic Modeling and GIS in Water Resources Management, 197

Piece-by-Piece Approach to Solving Large Nonlinear Water Resources Management Models, 1374

Risk-Based Decisionmaking in Water Resources IX, 1603

Tied by Water, 1488

Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344

Water rights

Assessing Water Availability under a Water Rights Priority System, 1362

Water storage

Storage Volume and Overflow Risk for Infiltration Basin Design, 879

Street Surface Storage for Control of Combined Sewer Surge, 1353

Water supply

Comprehensive Transboundary International Water Quality Management Agreement, 1574

Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346

Integrated Surface and Ground Water Management, 1593

Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360

Rediscovering the Lost City, 1480

Returning to the Source, 1510

Tied by Water, 1488

Water supply systems

Hydraulic Infrastructures Design Using Simulated Annealing, 839

Hydrologic Assessment of Water Losses in River, 1336

Tied by Water, 1488

Water surface

Incipient Motion Criteria for Rigid Sediment Grain on Rigid Surface, 338

Water table

Calculation of Inflow and Outflow in Phreatic Aquifers, 856

Case Study of Water Table Evaporation at Ichkeul Marshes (Tunisia), 891

Design of Circular Infiltration Basin under Mounding Effects, 1342

SUBJECT INDEX

- Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855
- Drainage Reduction under Land Retirement over a Shallow Water Table, 854
- Falling Water Tables in Horizontal/Sloping Aquifer, 906
- Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811
- Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896
- Water tanks**
- Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222
- Dust Suppression Using Truck-Mounted Water Spray System, 216
- Measurements of Turbulence Generated by Oscillating Grid, 686
- Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13
- Water treatment**
- Analysis of Overall Perchlorate Removal Rates in Packed-Bed Bioreactors, 487
- Evaluation of Drinking Water Biostability Using Biofilm Methods, 479
- Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447
- Groundwater and Soil Remediation. Process Design and Cost Estimating of Proven Technologies, 1586
- Model-Predicted Groundwater Circulation Well Performance, 1462
- Optimization of Hollow-Fiber Design and Low-Pressure Membrane System Operation, 489
- Photocatalysis of TCA, TCE, and PCE in Flow-Through Reactor System, 506
- Prediction and Measurement of Bubble Formation in Water Treatment, 551
- Water treatment plants**
- Overinvestment When Allocating Costs of Wastewater Treatment Plant, 1371
- Replacement Strategy, 1534
- Water use**
- Regional Alfalfa Yield, *ET_c*, and Water Value in Western States, 874
- Regional Flow Duration Models for Large Number of Ungauged Himalayan Catchments for Planning Microhydro Projects, 809
- Water waves**
- Analytical Study of Porous Wave Absorber, 316
- Runup on Columns in Steep, Deep Water Regular Waves, 1383
- Scour around Pile in Combined Waves and Current, 705
- Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382
- Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400
- Waterfront facilities**
- Reliability of Timber Fender Systems in Waterfront Facilities, 1099
- Watershed management**
- Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566

Wave equations

- Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337
- Making Watershed Partnerships Work: A Review of the Empirical Literature, 1376
- Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365
- Watershed Management & Operations Management 2000, 1620
- Watersheds**
- Disaggregation of Daily Rainfall for Continuous Watershed Modeling, 808
- A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784
- A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785
- Generalized Flood Skew: Map versus Watershed Skew, 807
- GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831
- GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832
- Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811
- Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340
- International Classification and Codification of Watersheds and River Basins, 1368
- Rational Hydrograph Method for Small Urban Watersheds, 814
- Regional Flow Duration Models for Large Number of Ungauged Himalayan Catchments for Planning Microhydro Projects, 809
- Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829
- Urban Drainage Modeling, 1618
- Waterways**
- Control Alternatives at a Waterway Lock, 1389
- Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388
- Genetic Algorithm for Selecting and Scheduling Interdependent Projects, 1385
- Wave action**
- Stresses and Deformation of Buried Pipeline under Wave Loading, 1305
- Wave attenuation**
- Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133
- Wave dispersion**
- Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392
- Longitudinal Dispersion Coefficient in Straight Rivers, 754
- Wave energy**
- Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390
- Wave Energy and Direction Observed Near Pier, 1380
- Wave equations**
- Experiments and Numerics of Bichromatic Wave Groups, 1419
- Fractional-Step Method Solution of Diffusive Wave Equation, 772

Wave forces

Wave forces

Second-Order Superharmonic Wave Loading on Jack-Up Platforms, 1417

Wave functions

Random Field Representation in a Biorthogonal Wavelet Basis, 300

Wave groups

Experiments and Numerics of Bichromatic Wave Groups, 1419

Experiments with Groups of Breaking Waves. Part I: Short Wave Motion, 1402

Wave guides

Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278

Wave height

Experiments with Groups of Breaking Waves. Part I: Short Wave Motion, 1402

Solitary Wave Runup on Plane Slopes, 1384

Wave measurement

Numerical Modeling of Waves at Ponce de Leon Inlet, Florida, 1399

Reflection and Transmission of Waves over Submerged Breakwaters, 289

Wave propagation

1D Time-Domain Solution for Seismic Ground Motion Prediction, 574

Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396

Dam-Break Waves in Power-Law Channel Section, 699

Evaluation of Numerical Models of Flood and Tide Propagation in Channels, 744

Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392

Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332

Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382

Wave Energy and Direction Observed Near Pier, 1380

Wave reflection

Analytical Study of Porous Wave Absorber, 316

Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

N-Type Sediment Bed Response under Standing Wave, 1408

Reflection and Transmission of Waves over Submerged Breakwaters, 289

Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381

Wave refraction

Wave Energy and Direction Observed Near Pier, 1380

Wave runup

Runup on Columns in Steep, Deep Water Regular Waves, 1383

Solitary Wave Runup on Plane Slopes, 1384

Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401

Wave Runup on Dikes with Shallow Foreshores, 1409

2001 ASCE TRANSACTIONS

Wave spectra

Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392

Second-Order Superharmonic Wave Loading on Jack-Up Platforms, 1417

Wave velocity

Flapping Instability of Vertically Impinging Turbulent Plane Jets in Shallow Water, 327

Scour around Pile in Combined Waves and Current, 705

Wavelength

Reflection and Transmission of Waves over Submerged Breakwaters, 289

Waves

Dynamic Load Simulator: Development of a Prototype, 429

Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403

Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121

Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416

Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420

Weather

Impact of Road Conditions on Elderly Drivers, 1284

Losses from Weather Extremes in the United States, 1432

Weathering

New Failure Load Criterion for Large Diameter Bored Piles in Weathered Geomaterials, 615

Predictions of Biodegradability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

Web beams

Effect of Local Details on Ductility of Welded Moment Connections, 1190

Webs

Design of Cold-formed Channels Subjected to Web Crippling, 1201

Weibull density functions

Power Distribution for Low Streamflows, 822

Weight

Absorption of Aramid Prestressing Rods in Aggressive Solutions, 171

Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248

Regularization in Moving Force Identification, 294

Weirs

Oxygen Transfer at Low Drop Weirs, 504

Welded joints

Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096

Tests of X- and K-Joints in CHS Stainless Steel Tubes, 1206

Tests of X- and K-Joints in SHS Stainless Steel Tubes, 1205

Welds

Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8

Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846

SUBJECT INDEX

Wood

The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6

Wells

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Identifying Impervious Boundary and Aquifer Parameters from Pump-Test Data, 694

Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862

Model-Predicted Groundwater Circulation Well Performance, 1462

Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908

Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452

West Virginia

Fragility Analysis of Concrete Gravity Dams, 840

Wetlands

Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566

Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695

Operation of Full-Scale Oily Wastewater Treatment System, 1451

Pathogen and Pathogen Indicator Removal Characteristics in Treatment of Wetland Systems, 1457

Wetlands Engineering & River Restoration, 1621

Wetting front

Experimental Validation and Applications of a Fluid Infiltration Model, 449

Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790

Wick drains

Draining in a New Direction, 1524

Width

Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993

Wilderness areas

A Natural Approach, 1526

Wildlife habitats

Dual Benefits, 1542

Wind

Double-Modal Transformation and Wind Engineering Applications, 329

Dynamic Load Simulator: Development of a Prototype, 429

Improving the Wind Stability of Suspension Bridges during Construction, 1171

Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404

Oil Containment by Boom in Waves and Wind. II: Waves, 1405

Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406

Wind direction

Database-Assisted Design, Standardization, and Wind Direction Effects, 1169

Wind forces

Database-Assisted Design, Standardization, and Wind Direction Effects, 1169

Wind loads

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Damping of Cantilevered Traffic Signal Structures, 1240

Design Method of a Hanger System for Long-Span Suspension Bridge, 75

Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239

Guide to the Use of Wind Load Provisions of ASCE 7-98, 1589

Gust Loading Factor: New Model, 1091

Theory and Full-Bridge Modeling of Wind Response of Cable-Supported Bridges, 99

Wind pressure

Non-Gaussian Wind Pressure on Prismatic Buildings. I: Stochastic Field, 1183

Non-Gaussian Wind Pressure on Prismatic Buildings. II: Numerical Simulation, 1184

Wind Pressures on End-Cell-Induced Vibration of Circular Tower, 411

Wind speed

An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298

Rain Catch under Wind and Vegetal Cover Effects, 774

Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Suspension Bridge Flutter for Girders with Separated Control Flaps, 74

Wind velocity

Fatigue Reliability Analysis of Microwave Antenna Towers due to Wind, 1211

Numerical Study on Flow over Buildings in Street Canyon, 475

Window glass

Considerations for Blast-Resistant Glazing Design, 47

Wire rope

Cracking and Fracture of Suspension Bridge Wire, 127

Wisconsin

Bad Engineering Yields Even Worse Lawsuits, 1049

Women

Diversity by the Numbers, 938

The Inherent Personality of Women as an Asset to the Engineering Workplace, 932

Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering, and Technology, 930

Mentoring, 933

Mystery of the Missing Women Engineers: A Solution, 1057

A New Day for ASCE, 941

Retention of Nontraditional Engineering and Construction Professionals, 946

Wood

Computational Modeling of Strand-Based Wood Composites, 375

Cyclic Analysis of Wood Shear Walls, 1123

DVW—Local Reinforcement for Timber Joints, 1174

Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967

Evolving Toward Project-Specific Reliability: Are We Sure It's a Good Idea?, 1241

Wood

2001 ASCE TRANSACTIONS

Modeling Three-Dimensional Timber Light-Frame Buildings, 1175

Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72

Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120

Reliability of Timber Fender Systems in Waterfront Facilities, 1099

Strength Capacities and Behavior of New Composite Timber-Steel Connector, 1173

Withdrawal Strength of Threaded Nails, 1124

Wood beams

Application of Dynamic System Identification to Timber Beams. I, 1121

Application of Dynamic System Identification to Timber Beams. II, 1122

Wood preservatives

Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72

Wood products

The Case of a Broken Plank, 1040

Wooden piles

Load Tests on Prestressed Precast Concrete and Timber Piles, 666

Wooden structures

Ancient Chinese Timber Architecture. I: Experimental Study, 1226

Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227

Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120

Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238

Working conditions

Innovative Benefits in a Small Consulting Firm, 914

Small Business Report: The Home Advantage, 1506

Workspace

Optimal Schedule Planning for Multiple, Repetitive Construction Process, 256

Yield stress

Vertical Yield Stress of Pisa Clay from Piezocone Tests, 652

Young's modulus

Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596

Zeolite

Ion Exchange of Ammonium in Zeolites: A Literature Review, 512

Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

Author Index

- Abaza, Khaled A.**
Macroscopic Optimum System for Management of
Pavement Rehabilitation, 1317
- Abbaspour, Karim C.**
see Kohler, Andreas, 903
- Abbaspour-Fard, M. H.**
see Favier, J. F., 391
- Abbott, Michael B.**
see Dibike, Yonas B., 196
- Abdul-Aziz, Abdul-Rashid**
Unraveling of BOT Scheme: Malaysia's Indah Water
Konsortium, 265
- Abdul-Malak, Mohamed-Asem U.**
Asphalt Works Subcontracting Disputes in Large Con-
struction Programs, 1038
- Delivery Approach for Coastal Infrastructure Facilities:
Case of the Transshipment Seaport of Sidon, 845
- Abernethy, C. L.**
see Sahoo, G. B., 897
- Aboumoussa, Walid**
see Iskander, Magued P.E., 1046
- AbouRizk, S.**
Estimating Labor Production Rates for Industrial Con-
struction Activities, 271
- AbouRizk, S. M.**
see Lu, Ming, 208
- AbouRizk, Simon M.**
see Allouche, Erez N., 268
- Abouseiman, Younane**
see Cui, Lizheng, 325
- Abou-Zeid, Marwan**
see Abdul-Malak. Mohamed-Asem U., 845
- Abraham, Dulcy**
see Wirahadikusumah, Reini, 844
- Abraham, Dulcy M.**
see Chae, Myung Jin, 174
- Abraham, Moises A.**
see Parlos, Alexander G., 1219
- Abrahamson, Norman A.**
see Liu, Andrew H., 663
- Abt, Steven R.**
Revising the Cutthroat Flume Settlement Rating
Adjustment Procedure, 863
- Abtew, Wossenu, P.E.**
Evaporation Estimation for Lake Okeechobee in South
Florida, 875
- Abu-Eisheh, Sameer A.**
see Abaza, Khaled A., 1317
- Abu-Mallouh, Maher M.**
see Hastak, Makarand, 842
- Abu-Tair, Abid.**
see Ali, Faris A., 1476
- Abyaneh, M. Y.**
Time-Dependent Creep Behavior of Particulate Materi-
als, 997
- Achari, G.**
see Stein, V. B., 1464
- Acra, A.**
see Ayoub, G. M., 454
- Acree, Robert**
see Maji, Arup, 349
- Adamkowski, Adam**
Case Study: Lapino Powerplant Penstock Failure, 717
- Adams, B. J.**
see Kleiner, Y., 175
- Adams, E. Eric**
see Socolofsky, Scott, 808
- Adams, Jeffrey A.**
see Reddy, Krishna R., 591
- Adams, Teresa M.**
see Blazquez, Carola A., 1415
- Addison, Marshall B., ed.**
see Vipulanandan, C., ed., 1583
- Addison, Paul S.**
Wavelet Transform Analysis of Open Channel Wake
Flows, 285
- see* Ndumu, Alberto S., 775
- Adebisi, O.**
see Osula, D. O. A., 1274
- Adeli, Hojjat**
see Senouci, Ahmed B., 213
- see* Sirca, Gene F., Jr., 1218
- Adib, Mazen E.**
Load Tests on Prestressed Precast Concrete and Tim-
ber Piles, 666
- Adikari, Gamini**
see Locke, Mark, 618
- Admiraal, J. B. M.**
see Bakker, K. J., 1493
- Adrian, D. D.**
see Ojha, C. S. P., 669
- Adrian, Donald Dean**
see Tsai, Ching-Nien, 826
- Adrian, L.**
see Yoo, E. S., 535
- Aelion, C. Marjorie**
see Kirtland, Brian C., 446
- Aerde, Michel Van**
see Rakha, Hesham, 1307

Agboh, Dennis K.
see Saka, Anthony A., P.E., 1296

Agrawal, A. K.
see He, W. L., 101

Aguado, P. J.
see Ayuga, F., 403

Ahlawat, A. S.
 Multiobjective Optimal Structural Vibration Control
 Using Fuzzy Logic Control System, 1224

Ahmad, I.
see Mansur, M. A., 1022

Ahmad, S.
 BEM Analysis of Two-Dimensional Elastodynamic
 Problems of Anisotropic Solids, 295

Ahmed, I.
see Lansey, K. E., 693

Ahmed, Syed M.
see De Saram, D. Darshi, 963

Ahmed, Mohsin
see Koehn, Enno "Ed", 43

Ahyerre, M.
 Nature and Dynamics of Water Sediment Interface in
 Combined Sewers, 458

Aicher, Simon
 Effect of Polar Anisotropy of Wood Loaded Perpendicular to Grain, 967

Aifantis, Elias C.
see Voyiadis, George Z., 351

Aitchison, Eric
see Licht, Louis, P.E., 1459

Akan, A. Osman
 Grass-Lined Channels, 690

Akisanya, A. R.
see Qian, Z. Q., 364

Akkaya, Yilmaz
 Effect of Fiber Dispersion on Multiple Cracking of
 Cement Composites, 314

Akpan, Edem O. P.
 A Methodology for Determining Price Variation in
 Project Execution, 254

Alampalli, Sreenivas
see Aref, Amjad J., 331
see Hag-Elsafi, Osman, 1203

Alampalli, Sreenivas, P.E.
 Peer Review to Enhance State Transportation Research
 Program, 918

Alappat, Babu J.
 Solid Circulation Rate in Recirculating Fluidized Bed,
 275

Alastuey, Andrés
see Moreno, Natàlia, 555

Alawneh, Ahmed Shlash, PhD
 Distress of RC Structure due to Poor Quality Control
 and Overloading, 1033

Al-Balbissi, Adli H.
 Rental Cars Unique Accident Trends, 1275

Albert, Michael L.
 Strengthening of Unreinforced Masonry Walls Using
 FRPs, 151

Albrecht, Brian A.
 Effect of Desiccation on Compacted Natural Clays, 577

Alcorn, Alan E., P.E.
 New Navigation Channel, 1560
see Foxworthy, John, 1559

Al-Deek, Haitham M., P.E.
 Analyzing Performance of ETC Plazas Using New
 Computer Software, 206
 Comparison of Two Approaches for Modeling Freight
 Movement at Seaports, 205

Alfawakhiri, Farid
 Local Versus Global Ductility Demands in Simple
 Bridges, 1136

Al-Ghamdi, Ali S.
 Analysis of Time Headways on Urban Roads: Case
 Study from Riyadh, 1290

Ali, Asghar, P.E.
see Nonaka, Tetsuya, 110

Ali, Faris A.
 Useful and Practical Hints on the Process of Producing
 High-Strength Concrete, 1476

Ali, M. S. Mohamed
 Shear Peeling of Steel Plates Bonded to Tension Faces
 of RC Beams, 1237

Allaire, Scott A.
see Ivan, John N., 1281

Allen, Charlene
 Using the Power of Diversity to Retain Staff: Develop-
 ing Tools to Ensure Success, 909

Allen, D. Grant
see Morgan-Sagastume, Fernando, 477

Allen, H. E.
see Weng, Chih-Huang, 569

Allouche, Erez N.
 Applications of Horizontal Characterization Tech-
 niques in Trenchless Construction, 268

Al-Mayah, A.
 Mechanical Behavior of CFRP Rod Anchors under
 Tensile Loading, 157

Almazán, José L.
see De la Llera, Juan C., 1128

Al-Omari, A. S.
 Unsteady-State Inverse Chlorine Modeling in Pipe Net-
 works, 730

Alonso, Cristina
 Mathematical Model of Biofiltration of VOCs: Effect
 of Nitrate Concentration and Backwashing, 510

Al-Qadi, I. L.
see Millard, S. G., 994

Al-Rayes, Aghyad W.
 Load Dampening System for Vapor Phase Bioreactors,
 457

AUTHOR INDEX

Archilla

- Alshamsi, A. M.
see Shattaf, N. R., 1017
- Alshibli, Khalid A.
Quantifying Void Ratio in Granular Materials using Voronoi Tessellation, 199
- Altun, Fatih
Flexural Behavior of Composite Reinforced Concrete Elements, 1002
- Alvarez, P.
see Rivas, F. J., 505
- Alvarez-Robinson, Sonia M.
Structural Engineering for Attaining and Maintaining a Diverse Workforce, 940
- Al-Yaqout, Anwar
Strategy for Landfill Design in Arid Regions, 1441
- Amatya, Prasanna L.
see Hettiaratchi, Joseph Patrick A., 1450
- Ambrose, Rob
see Whittaker, William, 23
- American Society of Civil Engineers
Design and Construction of Frost-Protected Shallow Foundations, 1577
Outstanding Civil Engineering Achievement Award and Award of Merit for 2001, 1531
- American Society of Civil Engineering
Standard Construction Guidelines for Microtunneling, 1607
- American Society of Civil Engineers
Standard Practice for Direct Design of Buried Precast Concrete Box Sections, 1609
Standard Practice for Direct Design of Precast Concrete Box Sections for Jacking in Trenchless Construction, 1610
Standard Practice for Direct Design of Precast Concrete Pipe for Jacking in Trenchless Construction, 1611
- Amirtharajah, A.
see Ravisangar, V., 495
- Ammar, Mohammad A.
Algorithm for Determining Controlling Path Considering Resource Continuity, 207
- Anand, A.
see Mishra, A., 858
- Anand, K. B.
Influence of Construction Method on Water Permeation of Interlocking Block Masonry, 44
- Anctil, François
see Coulibaly, Paulin, 815
- Andersen, Glen R.
Prioritization of Ten Embankment Dams According to Physical Deficiencies, 600
Risk Indexing Tool to Assist in Prioritizing Improvements to Embankment Dam Inventories, 599
- Anderson, J. Brian
SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations, 654
- Anderson, Jerry L., P.E.
see Gentry, Randall W., P.E., 737
- Anderson, Matthew T.
Role of Microscopic Physicochemical Forces in Large Volumetric Strains for Clay Sediments, 359
- Anderson, Stuart D.
Optimizing Owner/Contractor Core Competencies for Capital Programs, 950
- Anderson, Wayne A.
see Sims, Bradford L., 925
- Andrade, C.
Tests on Bond of Galvanized Rebar and Concrete Cured in Seawater, 1009
- Andrews, Jill H.
Safe in the 'Hood: Earthquake Preparedness in Midcity Los Angeles, 1421
- Andrieu, H.
see Dolciné, L., 771
- Andrus, Ronald D.
see Youd, T. L., 644
- Angold, Rusdon
see Burt, Charles M., 867
- Ankenman, Bruce
see Akkaya, Yilmaz, 314
- Anketell, Surendra
see Howard, Anthony, 1552
- Annable, Michael D.
see Hayden, Nancy J., 568
see Watson, Brian J., 797
- Ansar, Matahal
Experimental Study of 3D Pump-Intake Flows with and without Cross Flow, 745
- Antonopoulos, Vassilis Z.
Simulation of Water and Nitrogen Balances of Irrigated and Fertilized Corn-Crop Soil, 866
- Anwar, Arif A.
Irrigation Scheduling Using Mixed-Integer Linear Programming, 864
- Aoki, T.
see Matsushima, H., 984
- Aparicio, Ángel C.
see Cobo del Arco, Diego, 83
see Cobo del Arco, Diego, 1171
- Aprile, Alessandra
Assessment of Cracking and Collapse for Old Brick Masonry Columns, 1234
Role of Bond in RC Beams Strengthened with Steel and FRP Plates, 1236
- Aral, Mustafa M.
Identification of Contaminant Source Location and Release History in Aquifers, 799
- Arango, Ignacio
see Youd, T. L., 644
- Araujo, J.
see Lansey, K. E., 693
- Archilla, Adrián Ricardo
Estimation of Rutting Models by Combining Data from Different Sources, 1303

Arditi, David*see* Mochtar, Krishna, 956*see* Shi, Jonathan Jingsheng, 217**Arduino, Pedro**

Implementation of Porous Media Formulation for Geomaterials, 296

Numerical Analysis of Geomaterials within Theory of Porous Media, 297

Aref, Amjad J.

Framework for Finite-Element-Based Large Increment Method for Nonlinear Structural Problems, 363

Ritz-Based Static Analysis Method for Fiber Reinforced Plastic Rib Core Skew Bridge Superstructure, 331

Arellano, Juan B.*see* Serra, Teresa, 558**Arhelger, Martin***see* Morton, Robert A., 1387**Ari, Halil***see* Moschandreas, D. J., 537**Ariaratnam, Samuel T.**

Assessment of Infrastructure Inspection Needs Using Logistic Models, 852

see Allouche, Erez N., 268*see* Lucke, Jason S., 4**Aristizabal-Ochoa, J. Dario**

Nonlinear Large Deflection-Small Strain Elastic Analysis of a Beam-Column with Semi-Rigid Connections, 1082

Stability and Second-Order Analyses of Frames with Semirigid Connections under Distributed Axial Loads, 1221

see Rodriguez-Gutierrez, J. A., 1160*see* Rodriguez-Gutierrez, J. A., 1161**Artigue, G.***see* Belaid, F., 1027**Armaghani, Jamshid M.***see* Chini, Abdul R., 1316**Armanini, Aronne**

Rational Criterion for Designing Opening of Slit-Check Dam, 677

Armitage, Robert J.*see* Collop, Andrew C., 1262**Aron, Gert, P.E.***see* Fennessey, Lawrence A. J., P.E., 810**Arora, Jasbir S.***see* Silva, Marcelo A., 1177**Arteaga, A.***see* Andrade, C., 1009**Arzoumanidis, Serafim, P.E.***see* Cary-Brown, Richard, P.E., 1495**Asawa, G. L.***see* Sharma, Anupma, 817ASCE Task Committee on Diversity and ASCE Task Committee on Women in Civil Engineering
A New Day for ASCE, 941

ASCE Task Committee on Instrumentation and Monitoring Dam Performance

Guidelines for Instrumentation and Measurements for Monitoring Dam Performance, 1590

Aschheim, Mark A.*see* Cuesta, Isabel, 1187**Asfaw, M.***see* Maru, Savita, 1155**Ashford, Scott A.**

Drivability of Glass FRP Composite Piling, 149

Ashleigh, Melanie J.*see* Brown, David C., 962**Ashley, Mark, P.E.**

Holding Steady, 1527

Ashur, Suleiman A.*see* Abaza, Khaled A., 1317**Asi, Ibrahim M.***see* Wahhab, Hamad I. Al-Abdul, 1007**Asi, Ibrahim Mohammed**

Stabilization of Sebkhah Soil Using Foamed Asphalt, 1010

Assa, Beni

New Approach for Modeling Confined Concrete. I: Circular Columns, 1157

Assa, Beni, Ph.D.

New Approach for Modeling Confined Concrete. II: Rectangular Columns, 1158

Assih, Jules*see* Li, Alex, 1115**Astaneh-Asl, Abolhassan**

Seismic and Structural Engineering of a Curved Cable-Stayed Bridge, 107

Asteris, P. G.*see* Symakezis, C. A., 974**Atanackovic, T. M.***see* Maretic, R. B., 304**Attard, Mario M.***see* Foster, Stephen J., 1072**Attoh-Okine, Nii O., P.E.**

Use of Belief Function in Brownfield Infrastructure Redevelopment Decision-Making, 1332

Aultman-Hall, Lisa*see* Robertson, Stewart, 1284**Avent, R. Richard**

Repair of Localized Damage in Steel by Heat Straightening, 1199

Residual Stresses in Heat-Straightened Steel Members, 969

see Heymsfield, Ernest, 58**Avent, R. Richard, P.E.**

Engineered Heat-Straightening Repairs: A Case Study, 66

Avila, Ernesto A., P.E.

Competitive Forces that Drive Civil Engineer Recruitment and Retention, 923

AUTHOR INDEX

Barker

- Aycaguer, Anne-Christine
see Harmon, Thomas C., 554
- Aycin, Murat F.
Stability and Performance of Car-Following Models in Congested Traffic, 1254
- Ayora, Carles
see Moreno, Natàlia, 555
- Ayoub, G. M.
Heavy Metal Removal by Coagulation with Seawater Liquid Bittern, 454
- Ayuga, F.
Discharge and the Eccentricity of the Hopper Influence on the Silo Wall Pressures, 403
- Azari, Haleh
see McCuen, Richard H., 1301
- Azarnejad, Azita
Ice Rubble Behavior in Punch Tests, 136
- Azbar, Nuri
Two-Phase, Two-Stage, and Single-Stage Anaerobic Process Comparison, 459
- Aziznamini, Atorod, P.E.
see Mans, Patrick, 123
- Azzellino, A.
Pool Quality Index: New Method to Define Minimum Flow Requirements of High-Gradient, Low-Order Streams, 556
- Baaj, M. Hadi
Modeling Noise at Elevated Highways in Urban Areas: A Practical Application, 1335
- Babaeyan-Koopaei, K.
Dimensionless Curves for Normal-Depth Calculations in Canal Sections, 907
- Babaeyan-Koopaei, K.
Choke-Free Flow in Ovoidal Sewers with Increase in Bed Elevations, 682
- Babitsky, Steven
Becoming an Expert Witness, 1504
- Babovic, Vladan
Neural Networks as Routine for Error Updating of Numerical Models, 684
- Babu, B. Maheswara
see Mishra, P. K., 872
- Back, W. Edward
see Isidore, Leroy J., 262
- Baetz, Brian W.
see Randall, Todd A., 1324
see Wilson, Bruce G., 559
see Wilson, Bruce G., 560
- Baghdadi, Z. A.
see Shihata, S. A., 1000
- Baghdadi, Zaki A.
see Shihata, Sabry A., 988
- Bagley, David M.
see Sahely, Brian S. G. E., 467
- Bahia, Hussain U.
see Masad, Eyad, 1315
- Bai, Hsunling
Field Study, Design, and Catalyst Cost of Selective Catalytic Reduction Process, 520
see Lin, Chia-Hsin, 509
- Bai, Yong
Quality Control Parameters for Robotic Bridge Painting, 227
- Bailard, James A., P.E.
Sedimental Journey, 1499
- Baim, Earl J.
see Hastak, Makarand, 843
- Bakeer, Reda M.
Long-Term Buckling Performance of HDPE Liners, 991
- Baker, Malchus B., Jr.
see Lopes, Vicente L., 1340
- Baker, Rafael
Spatial Distribution of Safety Factors, 583
- Bakheet, Moataz
see Kangari, Roozbeh, 238
- Bakker, K. J.
Monitoring Two Tunnels, 1493
- Balaguru, P.
see Kurtz, Stephen, 1073
- Balakrishnan, M.
see Papanicolaou, A. N., 301
- Balascio, Carmine C.
Multiquadric Equations and Optimal Areal Rainfall Estimation, 830
- Bali, K. M.
Reduced-Runoff Irrigation of Alfalfa in Imperial Valley, California, 873
see Grismer, M.E., 899
- Bali, Khaled M.
see Ventura, Francesca, 901
- Balkaya, Can
Behavior and Modeling of Nonprismatic Members Having T-Sections, 1179
- Ballantyne, Donald B., P.E.
see Piarepiekarz, Mark R., P.E., 1522
- Bandara, N.
Current and Future Pavement Maintenance Prioritization Based on Rapid Visual Condition Evaluation, 1268
- Banerji, Shankha K.
see Gang, Dianchen, 1447
- Barber, Michael E.
see Bakeer, Reda M., 991
see Hotchkiss, Rollin H., 768
- Barbosa, Ana Estela
Infiltration Pond Design for Highway Runoff Treatment in Semiarid Climates, 557
- Barker, Michael G., P.E.
Quantifying Field-Test Behavior for Rating Steel Girder Bridges, 86

- Barlaz, Morton A.**
see Harrison, Kenneth W., 178
- Barnes, R. W.**
see Billington, S. L., 65
- Baroghel-Bouny, Véronique**
see Mainguy, Marc, 344
- Barr, Paul J.**
 Live-Load Distribution Factors in Prestressed Concrete Girder Bridges, 91
- Barrios, J. Eugenio**
see Jiménez, Blanca E., 1056
- Barros, Ana P.**
 Surface Roughness for Shallow Overland Flow on Crushed Stone Surfaces, 673
- Barsanti, James**
see Fan, Chi-Yuan, 1358
- Barth, Amy S. (Grider)**
 Fatigue Behavior of Welded Diaphragm-to-Beam Connections, 1202
- Barton, Furman W.**
see Dobmeier, Jeffrey M., 1039
- Basha, Ismail M.**
see El-Kelesh, Adel M., 658
see El-Razek, Mohamed Emam Abd, 235
- Bashford, Howard H.**
see Walsh, Kenneth D., 1047
- Bastiaanssen, W. G. M.**
see Sarwar, Asad, 900
- Batchelor, Bill**
see Kim, Inchul, 453
- Bathon, Leander A.**
see Schreyer, Alexander, 1173
- Bati, Silvia Briccoli**
 Experimental Methods for Estimating In Situ Tensile Force in Tie Rods, 426
- Bauwens, Willy**
see Melching, Charles S., 1379
- Baxter, J.**
see Smith, L., 395
- Bayasi, Ziad**
 Composite Slabs with Corrugated SIMCON Deck as Alternative for Corrugated Metal Sheets, 1208
- Bayazit, M.**
see Önöz, B., 822
- Baykal, O.**
see Yanalak, M., 1249
- Bayrak, Oguzhan**
 Plastic Hinge Analysis, 1196
- Bayramoglu, Sevdä**
 Partnering in Construction: Improvement through Integration and Collaboration, 928
- Bažant, Zdeněk P.**
see Brocca, Michele, 1230
- Beasley, Kimball J., P.E.**
 Contemporary and Traditional Wall-System Failures, 1035
- Beck, D. L.**
see DeBoer, D. W., 892
- Beck, Peter**
 The AEC Dilemma—Exploring the Barriers to Change, 919
- Beckett, Ronald**
see Khoshmanesh, Aazam, 432
- Bedient, Philip B.**
see El-Beshry, Manar Z., 507
- Beffa, Cornél**
 Two-Dimensional Flood Plain Flow. I: Model Description, 818
see Connell, Robert J., 819
- Beitleman, Thomas**
see Mirmiran, Amir, 146
- Bekeris, L. E.**
see Doering, J. C., 131
- Belaid, F.**
 Effect of Bars Properties on Bond Strength of Galvanized Reinforcement, 1027
- Belaud, Gilles**
 Sediment Diversion through Irrigation Outlets, 859
- Bell, Glenn R., P.E.**
see Kelley, Paul L., P.E., 1520
- Belletti, Beatrice**
 Physical Approach for Reinforced-Concrete (PARC) Membrane Elements, 1233
- Bellotti, Giorgio**
see Beltrami, Gian Mario, 1410
- Belosevic, Miodrag**
see Li, Hanbin, 486
see Li, Hanbin, 503
- Beltaos, Spyros**
 Hydraulic Roughness of Breakup Ice Jams, 727
- Beltrami, Gian Mario**
 Treatment of Wave Breaking and Total Absorption in a Mild-Slope Equation FEM Model, 1410
- Beltrán, F. J.**
see Rivas, F. J., 505
- Bencardino, F.**
see Spadea, G., 97
- Bendelius, Art, P.E.**
 Life at the End of the Tunnel, 1512
- Bender, Donald A.**
see Rammer, Douglas R., 1124
- Benedetti, Andrea**
see Aprile, Alessandra, 1234
- Benekohal, Rahim F.**
see Aycin, Murat F., 1254
- Bengtsson, Lars**
see Deng, Zhi-Qiang, 754

AUTHOR INDEX

Bloomfield

- Benjamin, Mark M.
see Voges, Lloyd Emil, P.E., 480
- Benmarce, Abdelaziz
see Ali, Faris A., 1476
- Benmokrane, Brahim
see Zhang, Burong, 152
- Bennett, Richard M.
see Flanagan, Roger D., 1479
- Bensabat, Jacob
see Gordon, Ekaterina, 1343
- Benson, Craig H.
see Albrecht, Brian A., 577
see Foose, Gary J., 617
see Goodhue, Marc J., 602
see Jo, Ho Young, 621
- Benter, B. D.
see Shelley, M. L., 566
- Bereciartua, P.
see Neary, V. S., 752
- Bergado, Dennes T.
see Chai, Jin-Chun, 659
- Berger, R. C.
see Burg, Clarence O. E., 675
see Stockstill, Richard L., 1413
- Bergeron, H. Edmund, P.E.
A Perspective on the Need to Give and Introduction to Engineering Management to All Engineering Students, 910
- Bergman, L. A.
see Pesterev, A. V., 307
- Berlamont, Jean
see El-Sadek, Alaa, 904
- Bernet, Nicolas
Nitrification at Low Oxygen Concentration in Biofilm Reactor, 462
- Bernier, Gérard
see Poitou, Arnaud, 345
- Bernold, Leonhard E.
Technological Intervention to Eliminate Back Injury Risks for Nail'ing, 240
see Bai, Yong, 227
- Berrill, J. B.
see Davis, R. O., 594
- Bert, Charles W.
see Zeng, Huan, 384
- Bert, Ray
Replacement Strategy, 1534
- Berthelot, Curtis, P.E.
Ground-Penetrating Radar for Cold In-Place Recycled Road Systems, 1292
- Bertini, Robert L.
see Steingröver, Andreas, 1505
- Bhaduri, Budhendra
Long-Term Hydrologic Impact of Urbanization: A Tale of Two Models, 1337
- Bhargava, P.
see Ojha, C. S. P., 733
- Bhattacharya, D.
see Rao, A. Ramachandra, 788
- Bhattacharyya, B.
Sensitivity Statistics of 3D Structures under Parametric Uncertainty, 382
- Bielak, Jacobo
see Papalou, Angeliki, 611
- Bielefeldt, Angela
see Ramaswami, Anu, 562
- Bielefeldt, Angela R.
Assessing Multicomponent DNAPL Biostabilization Potential. II: Aroclor 1242, 563
- Billington, S. L.
Alternate Substructure Systems for Standard Highway Bridges, 65
see Kwan, W.-P., 1231
- Binienda, W. K.
see Robinson, D. N., 342
- Biron, P. M.
see Bradbrook, K. F., 701
- Bishop, Paul L.
see Zhang, Xiaoqi, 536
- Bissonnette, B.
see Fafard, M., 371
- Bittencourt, R. M.
Mass Concrete Mixtures Based on Fineness Modulus and Geometrical Gradation, 971
- Bjorhovde, Reidar
Structural Steel Selection Considerations: A Guide for Students, Educators, Designers, and Builders, 1613
- Black, R. Gary
see Astaneh-Asl, Abolhassan, 107
- Blackburn, Denis
see Mercier, Guy, 473
- Blais, J. F.
Class A Pathogen Reduction in the SSDML Process, 1446
see Shen, S. B., 1460
- Blakeborough, A.
see Williams, D. M., 372
- Blancaert, Koen
Mean Flow and Turbulence in Open-Channel Bend, 746
- Blazquez, Carola A.
Optimization of Mechanical Dredging Operations for Sediment Remediation, 1415
- Bleckmann, C. A.
see Shelley, M. L., 566
- Bledsoe, Brian P., P.E.
see Roesner, Larry A., P.E., 1351
- Bloomfield, Jay A.
see Effler, Steven W., 1361

Bloomquist, D.

see Cook, R. A., 1240

Blouin, Stéphane

Review of Resistive Force Models for Earthmoving Processes, 29

Blumberg, Alan F.

Three-Dimensional Hydrodynamic Model of New York Harbor Region, 5

Blunden, B.

Pyrite Oxidation Model for Assessing Ground-Water Management Strategies in Acid Sulfate Soils, 584

Bobée, Bernard

see Coulibaly, Paulin, 815

Bobet, Antonio

Analytical Solutions for Shallow Tunnels in Saturated Ground, 424

Bocquillon, Claude

see Moussa, Roger, 772

Bodapati, S. N., P.E.

see Kay, Dianne H., P.E., 1041

Bodapati, S. Narayan, P.E.

see Morgan, Susan M., P.E., 1282

Boilé, Maria P.

Estimating Technical and Scale Inefficiencies of Public Transit Systems, 1276

Boldt, Oscar C.

Finding Your Way through Life, 917

Bonacci, J. F.

Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP, 154

see Pantazopoulou, S. J., 143

Bonanni, David L.

see Sarkani, Shahram, 1108

Bonasso, Samuel G., P.E.

Engineering, Leadership, and Integral Philosophy, 1052

Boothby, Thomas E.

Load Rating of Masonry Arch Bridges, 64

Bouchard, Anthony B., P.E.

see Kulchawik, Robert J., P.E., 1550

Bouckovalas, George D.

see Papadimitriou, Achilleas G., 660

Boudjelal, M. T.

see Fafard, M., 371

Boulanger, Ross W.

see Curras, Christina J., 624

Bourdeau, Philippe L.

Stochastic Model for Time-Dependent Compression of Particulate Media, 339

Bourgeois, Keith

see Loge, Frank J., 533

Bowman, Mark D.

see Barth, Amy S. (Grider), 1202

Boyd, Stephen A.

see Rakiashandehroo, G. Reza, 518

Bradberry, Timothy Ernest, P.E.

Stronger Longer, 1508

Bradbrook, K. F.

Role of Bed Discordance at Asymmetrical River Confluences, 701

Bradford, Mark A.

see Ali, M. S. Mohamed, 1237

Bradford, Mark Andrew

see Pi, Yong-Lin, 1146

Bradford, Scott F.

Finite Volume Model for Nonlevel Basin Irrigation, 885

Brady, Danielle

see Ebbs, Stephen, 1454

Bragdon, Melanie

see Dagher, J. J., P.E., 1538

Brainerd, Michael L., P.E.

see Kelley, Paul L., P.E., 1520

Brandes, Edward A.

see Yates, David, 804

Brandon, Thomas L., ed.

Foundations and Ground Improvement, 1584

Brannon, James M.

see Price, Cynthia B., 433

Brashear, Robert W., ed.

Urban Drainage Modeling, 1618

Brashear, Robert W., P.E.

see Roesner, Larry A., P.E., 1351

Brasil, Reyolando M. L. R. F.

see Silva, Marcelo A., 1177

Brass, C.

see Xu, Z. X., 795

Bratby, J. R., P.E.

see Parker, D. S., P.E., 476

Bray, Jonathan D.

see Stewart, Jonathan P., 653

Breen, J. E.

see Billington, S. L., 65

Breen, John E.

see Roberts-Wollmann, Carin L., 119

Breukelman, Brian, P.E.

Good Vibrations, 1562

Briaud, J. L.

Multiflood and Multilayer Method for Scour Rate Prediction at Bridge Piers, 581

Briaud, Jean-Louis

Erosion Function Apparatus for Scour Rate Predictions, 580

see Ting, C. K., 759

Bridge, Russell Q.

see Pircher, Martin, 1200

Brill, E. Downey, Jr.

see Harrison, Kenneth W., 178

AUTHOR INDEX

Byrd

- Brinke, Wilfried B. M. Ten**
see Kleinhans, Maarten G., 692
- Brissette, Francois P., P.E.**
see Leconte, Robert, P.E., 790
- Brocca, Michele**
 Size Effect in Concrete Columns: Finite-Element Analysis with Microplane Model, 1230
- Bromley, Charles, P.E.**
 Returning to the Source, 1510
- Brooks, Michael C.**
see Hayden, Nancy J., 568
- Brothers, Heidi S., P.E.**
see Henry, Elwood, 253
- Brouwer, Greg**
 Bridge to the Future, 1554
- Brown, Aaron S.**
 Neural Networks for Multiobjective Adaptive Structural Control, 1095
- Brown, David C.**
 New Project Procurement Process, 962
- Brown, Dwain K., P.E.**
see Nicholas, David G., P.E., 1541
- Brown, Jeff**
 Exploring All Options, 1533
- Brown, Jeff L.**
 Mile High Design, 1513
 A Natural Approach, 1526
 Out of the Way, 1498
 Rediscovering the Lost City, 1480
- Brown, Kim Parker, P.E.**
 Mentors and Role Models: Are They Important?, 934
- Brown, Thomas G.**
see Azamejad, Azita, 136
- Browning, JoAnn P.**
 Proportioning of Earthquake-Resistant RC Building Structures, 1088
- Bruce, T.**
see Martin, A. J., 1383
- Bruneau, Michel**
see Alfawakhiri, Farid, 1136
see Paquette, Jocelyn, 1137
- Bruscella, Ben**
see Rouillard, Vincent, 1285
- Bubshait, Abdulaziz A.**
 Quality of Pavement Construction in Saudi Arabia, 1475
- Budhu, M.**
see Helwany, Sam M. B., 636
- Budiman, Jeff**
see Farhan, Saady, PhD, 434
- Bull, Desmond K.**
see Zhang, Xudong (David), 1075
- Bungey, J. H.**
see Millard, S. G., 994
- Burdette, Edwin G.**
 Comparison of Static and Dynamic Lateral Stiffness of a Driven Pile, 70
- Burg, Clarence O. E.**
 Efficient, Robust Design Tool for Open-Channel Flow, 675
- Burger, Craig A.**
 Soil-Water Characteristic Curves and Dual Porosity of Sand-Diatomaceous Earth Mixtures, 642
- Burges, Stephen J.**
see Konrad, Christopher P., 1346
- Burgess, Michael D.**
see Hanson, Clayton L., 780
- Burgueño, Rigoberto**
see Davol, Andrew, 1165
- Burian, Steven J.**
 Training Artificial Neural Networks to Perform Rain-fall Disaggregation, 776
- Burke, Christopher**
see Ling, Hoe I., 657
- Burken, Joel G.**
 Benzene Toxicity and Removal in Laboratory Phytoremediation Studies, 1458
- Burkholder, Earl F.**
 Spatial Data, Coordinate Systems, and the Science of Measurement, 1253
- Burks, Glenn A.**
see Harmon, Thomas C., 554
- Burn, Donald H.**
 Waste-Load Allocation Using Genetic Algorithms, 1348
- Burnham, James**
see Robinson, R. Bruce, 499
- Burns, Susan E.**
see Soule, Natalie M., 603
- Burrows, R.**
see Tanyimboh, T.T., 1359
- Burt, Charles M.**
 Flap Gate Design for Automatic Upstream Canal Water Level Control, 867
- Busnelli, Marcela M.**
 Numerical Morphological Modeling of Open-Check Dams, 678
- Busooli, Wisam**
 Exact Static Analysis of Helicoidal Structures of Arbitrary Shape and Variable Cross Section, 1217
- Butler, James P.**
see Tomasko, David, 1370
- Buttler, William G., ed.**
 Advanced Airfield Pavements, 1565
- Buzzoni, Guy**
see Jones, Stacey G., P.E., 1558
- Byle, Michael J., P.E.**
see Haider, Tarek F., P.E., 1555
- Byrd, Meghann A.**
see Chinowsky, Paul S., 1054

- Caetano, E.
see Cunha, A., 61
- Cai, Chun S.
Performance Investigation of Concrete Manhole Inlets, 1478
- Cai, Ximing
Piece-by-Piece Approach to Solving Large Nonlinear Water Resources Management Models, 1374
- Caiazzo, Anthony A.
Effective 3D Constitutive Relations of Composites with Evolving Damage, 353
- Caicedo, Juan M.
see Yi, Fu, 413
- Çakıroğlu, Fevzi L.
Contact Problems for Two Elastic Layers Resting on Elastic Half-Plane, 291
- Çakıroğlu, Mehmet
see Çakıroğlu, Fevzi L., 291
- Caldwell, J. G.
see Warith, M. A., 1445
- Camacho, José Villaseñor
see Martínez, Antonio de Lucas, 461
- Camo, S., P.E.
see Mayrbauri, R. M., P.E., 127
- Camp, Charles V.
see Gentry, Randall W., P.E., 737
- Campbell, Sharon G.
Modeling Klamath River System Operations for Quantity and Quality, 1367
- Camper, A. K.
see Sharp, R. R., 479
- Candappa, D. C.
Complete Triaxial Stress-Strain Curves of High-Strength Concrete, 995
- Cañizares, Pablo Cañizares
see Martínez, Antonio de Lucas, 461
- Cañizares, Rafael
see Babovic, Vlado, 684
- Cannon, Fred S., P.E.
Copper Removal to PPB Residuals via Iron Coagulants and Biosolids Storage Conditioning, 517
- Canty, Geoffrey A.
Physical and Chemical Evaluation of CCBs for Alternative Uses, 276
- Cao, Yiwon
see Briaud, Jean-Louis, 580
- Capecchi, Danilo
Hysteretic Systems with Internal Variables, 380
- Carassale, Luigi
Double-Modal Transformation and Wind Engineering Applications, 329
- Cargill, P. Ethan
see DeLong, Jason T., 585
- Carlson, J. David
see Yi, Fu, 413
- Carly, Lauren B., P.E.
see Wilson, Howard O., P.E., 1551
- Carr, Robert W., P.E.
Street Surface Storage for Control of Combined Sewer Surge, 1353
- Carr, V.
see Tah, J. H. M., 192
- Carraro, João Antônio Harb
see Consoli, Nilo Cesar, 640
- Carrasco, Cesar J.
see Osegueda, Roberto A., 34
- Carriere, P. E.
see Theegala, C. S., 1461
- Carrillo, Alex
see Horner, David A., 398
- Cartledge, Frank K.
see Liu, Dingfang, 538
see Liu, Dingfang, 539
- Cary-Brown, Richard, P.E.
Beltway Connection, 1495
- Casamitjana, Xavier
see Serra, Teresa, 558
- Casas, Joan R.
see Deng, Linzhong, 89
- Casazza, Joseph
see Kissida, John, 1444
- Cassiani, G.
see Hueckel, T., 655
- Castro, Gonzalo
see Yound, T. L., 644
- Castro, Sigifredo
Plant-Enhanced Remediation of Glycol-Based Aircraft Deicing Fluids, 1456
- Castronovo, Joseph P., ed.
Pipeline 2001, Advances in Pipelines Engineering & Construction, 1600
- Cattaneo, Sara
Damage of Marble from Cyclic Loading, 1028
- Caywood, Cory J.
see Saidi, M. Said, 77
- Celeste, A.
see Pignolet, G., 25
- Celestino, T.
Fracture Mechanics of Marble Using a Splitting Tension Test, 1020
- Celestino, Tarcisio B., ed.
Shotcrete for Underground Support VIII, 1604
- Cerioni, Roberto
see Belletti, Beatrice, 1233
- Cesare, Mark A.
see Sues, Robert H., 36
- Chaaya, Michel
Cognizance of Visual Design Management in Life-Cycle Project Management, 947

AUTHOR INDEX

Chapman

- see* Jaafari, Ali, 218
- Chae, Myung Jin**
Neuro-Fuzzy Approaches for Sanitary Sewer Pipeline Condition Assessment, 174
- Chahar, Bhagu R.**
see Swamee, Prabhata K., 895
- Chai, B. Q.**
see Zhang, Q. Y., 729
- Chai, Jin-Chun**
Simple Method of Modeling PVD-Improved Subsoil, 659
- Chajes, Michael J.**
see Miller, Trent C., 114
- Chaker, Amar A.**
Speeding Across Spain, 1518
- Chakraborty, S.**
see Bhattacharyya, B., 382
- Chan, Albert P. C.**
Design and Build Project Success Factors: Multivariate Analysis, 221
Effect of Interorganizational Teamwork on Project Outcome, 945
- Chan, E. S.**
see Gin, K. Y. H., 546
- Chan, S. L.**
see Chen, S. F., 1150
- Chan, T. H. T.**
see Law, S. S., 294
- Chan, T. K.**
see Soh, C. K., 404
- Chan, Ting Pong**
Interval Computing Method for Analyzing Field-Scale Solute Transport, 828
- Chan, Toong Khuan**
see Nguyen, Dai Minh, 144
- Chan, W. T.**
see Chua, D. K. H., 214
- Chan, Weng-Tat**
see Liong, Shie-Yui, 777
- Chan, Wilson K. W.**
see Tam, C. M., 248
- Chandler, J. H.**
see Lane, S. N., 749
- Chandramouli, V.**
Multireservoir Modeling with Dynamic Programming and Neural Networks, 1345
- Chandrasegaran, S.**
see Fwa, T. F., 1299
- Chandrasekera, Carmela N.**
Linear Refraction-Diffraction Model for Steep Bathymetry, 1397
- Chang, Andrew Shing-Tao, P.E.**
Defining Cost/Schedule Performance Indices and Their Ranges for Design Projects, 954
Work-Time Model for Engineers, 230
- Chang, C. C.**
Ambient Vibration of Long-Span Cable-Stayed Bridge, 60
see Zhang, Q. W., 90
- Chang, C. Y.**
Kinetics of Decomposition of Polyethylene Glycol in Electroplating Solution by Ozonation with UV Radiation, 543
- Chang, Cheng**
see Li, Hongsheng, 135
- Chang, E-E**
see Chiang, Yu-Chun, P.E., 437
- Chang, Kang-tsung**
see Khatib, Zaher, 1257
- Chang, Lawrence**
see Sun, Darren Delai, 544
- Chang, Luh-Maan**
BOT Financial Model: Taiwan High Speed Rail Case, 236
- Chang, Moo Been**
Characteristics of Energy Flow in Municipal Solid Waste Incinerator, 440
- Chang, Ni-Bin Chang**
see Chen, W. C., 561
- Chang, Peter**
see Rigato, Antonio, 1169
- Chang, Peter C., ed.**
A Structural Engineering Odyssey, 1612
see Lovell, David J., 1289
- Chang, Sung-Pil**
see Kim, Moon-Young, 367
see Kim, Moon-Young, 368
- Chang, T. Y. P.**
see Chang, C. C., 60
- Chang, T. Y. P.**
see Zhang, Q. W., 90
- Chang, Tang-Hsien**
Effect of Vehicles' Suspension on Highway Horizontal Curve Design, 1264
- Chang, Yujung**
see Voges, Lloyd Emil, P.E., 480
- Changnon, Stanley A.**
Losses from Weather Extremes in the United States, 1432
- Chanson, H.**
Teaching Hydraulic Design in an Australian Undergraduate Civil Engineering Curriculum, 763
- Chao, Allen C.**
see Langley, William G., 513
see Wu, Jy S., 514
- Chao, Y. C.**
see Chen, Sheng-Jin, 1134
- Chapman, Raymond S.**
see Goodwin, R. Andrew, 1377

Chase, Steven B.

High-Tech Inspection, 1544

Chau, K. W.

3D Numerical Model in Orthogonal Curvilinear and Sigma Coordinate System for Pearl River Estuary, 676

Chaudhry, M. H.

see Al-Omari, A. S., 730

Chaudhry, M. Hanif

see Mpesha, Witness, 681

see Silva-Araya, Walter F., 723

Chauhan, H. S.

see Upadhyaya, A., 896

see Upadhyaya, A., 906

Chebbo, G.

see Ahyerre, M., 458

Chen, C.

see Huang, An-Bin, 605

Chen, C. C.

see Weng, C. C., 1207

Chen, Caroline J.

see Juang, C. Hsein, 632

Chen, Cheng-Hsing

see Hwang, Jin-Hung, 656

Chen, Chih-Wei

see Wu, Chih-Ping, 19

Chen, Chu-Hui

see Chen, Jiann-Mou, 905

Chen, DaHong

see Lo, Siu Ming, 40

Chen, Dar-Hao

Comparison of Two Pavement Rehabilitation Strategies, 1259

Chen, Genda

Optimal Placement of Multiple Tuned Mass Dampers for Seismic Structures, 1192

Chen, Guang-Hao

Removal of Dissolved Organic Carbon in Sanitary Gravity, 466

Chen, H. C.

see Briaud, J. L., 581

see Briaud, Jean-Louis, 580

see Ting, C. K., 759

Chen, Hong

see Liew, J. Y. Richard, 1094

Chen, Huixin

see Dong, Ping, 1400

Chen, Hung-Liang "Roger"

Analysis of Acoustic Surface Waveguide for AE Monitoring of Concrete Beams, 278

Chen, J. F.

Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete, 1162

Finite-Element Modeling of Filling Pressures in a Full-Scale Silo, 402

Chen, J. N.

see Chang, C. Y., 543

Chen, Jen-Yan

see Lu, Jau-Yau, 751

Chen, Jiann-Mou

Multidimensional Infiltration with Arbitrary Surface Fluxes, 905

Chen, Jiun-Shyan

see Wu, Cheng-Tang, 330

Chen, Jyh-Cherng, PhD

Adsorption Mechanism of Heavy Metals on Sorbents during Incineration, 438

Chen, Mu-Tsang

Response of an Earth Dam to Spatially Varying Earthquake Ground Motion, 385

Chen, Po-Han

see Chang, Luh-Maan, 236

Chen, Qingbin

see Maragakis, Emmanuel "Manos", 98

Chen, Roger H. L.

Measurement of Tensile Forces in a Seven-Wire Prestressing Strand Using Stress Waves, 346

Chen, S. F.

Design of Biaxially Loaded Short Composite Columns of Arbitrary Section, 1150

Chen, Sheng-Jin

Enhancement of Ductility of Existing Seismic Steel Moment Connections, 1134

Chen, W. C.

Advanced Hybrid Fuzzy-Neural Controller for Industrial Wastewater Treatment, 561

Chen, W. F.

see Peng, J. L., 1101

see Zhou, S. P., 1107

Chen, Wen

see Fish, Jacob, 420

Chen, Xiaoge

Study of Sewage Sludge Pyrolysis Mechanism and Mathematical Modeling, 502

Chen, Xinzong

Aeroelastic Analysis of Bridges under Multicorrelated Winds: Integrated State-Space Approach, 410

Equivalent Static Wind Loads for Buffeting Response of Bridges, 1239

Chen, Y.H.

see Chang, C. Y., 543

Chen, Yuh-Jyh

see Hsu, Tung-Wen, 1263

Chen, Z. H.

see Xu, Y. L., 1170

Chen, Zhongda

see Zheng, Chuanchao, 1267

Cheng, Eddie W. L.

Infrastructure of Partnering for Construction, 966

Cheng, J. J. Roger

see Albert, Michael L., 151

AUTHOR INDEX

Chou

- Cheng, Jiayang
Nitrification/Denitrification in Intermittent Aeration
Process for Swine Wastewater Treatment, 516
- Cheng, Juey-Fu
see Lee, Yusin, 1293
- Cheng, Kuang-Jer
see Shih, Li-Hsing, 485
- Cheng, Liang
see Li, Fangjun, 1391
- Cheng, Min-Yuan
GIS-Based Cost Estimates Integrating with Material
Layout Planning, 245
- Cheng, Nian-Sheng
Measurements of Turbulence Generated by Oscillating
Grid, 686
- Cheng, Y. C.
see Zhou, S. P., 1107
- Chennouf, Adil
see Zhang, Burong, 152
- Cheon, Jeong-Yong
see Lee, Cheol-Hyo, 508
- Cheong, Hee Kiat
see Nguyen, Dai Minh, 144
- Cheong, Tae Sung
see Seo, Il Won, 709
- Chern, S.
see Huang, An-Bin, 605
- Chen, Ruey Long
see Xie, Chi, 1319
- Cheung, Kwok Fai
see Chandrasekera, Carmela N., 1397
- Cheung, S. O.
see Shi, Jonathan Jingsheng, 217
- Cheung, Sai-On
Improving Objectivity in Procurement Selection, 955
- Chevallier, Nicola J.
Developing a Draft Schedule Using Templates and
Rules, 257
- Chi, Liquan
see Wu, Cheng-Tang, 330
- Chiang, P. C.
see Chang, C. Y., 543
- Chiang, Pen-Chi, P.E.
see Chiang, Yu-Chun, P.E., 437
- Chiang, Yu-Chun, P.E.
Effects of Surface Characteristics of Activated Carbons
on VOC Adsorption, 437
- Chien, Steven
Genetic Algorithm Approach for Transit Route Plan-
ning and Design, 1278
- Optimal Work Zone Lengths for Four-Lane Highways,
1269
- Chiew, Francis H. S.
see Piechota, Thomas C., 773
- Chiew, Sing-Ping
Moment Resistance of Steel I-Beam to CFT Column
Connections, 1204
- Chiew, Y. M.
see Song, T., 302
- Childs, Kenneth M., Jr., ed.
Underwater Investigation Standard Practice Manual,
1617
- Childs, S. J.
Incipient Motion Criteria for Rigid Sediment Grain on
Rigid Surface, 338
- Chinesta, Francisco
see Poitou, Arnaud, 345
- Ching, Jian-Ye
1D Time-Domain Solution for Seismic Ground Motion
Prediction, 574
- Chinh, Pham Duc
Load Bearing Capacity of Reinforced Concrete Beams
Subjected to Dynamic Cyclic Loads, 388
- Chini, Abdol R.
Test of Recycled Concrete Aggregate in Accelerated
Test Track, 1316
- Chinowsky, Paul S.
Construction Management Practices Are Slowly
Changing, 916
- Strategic Management in Design Firms, 1054
- Strategic Management in Engineering Organizations,
948
- Chiou, Yüing-Yuan
see Chu, Hsin, 483
- Chiu, C. F.
see Ng, Charles W. W., 664
- Chiu, C. Y.
see Chang, C. Y., 543
- Cho, Chung-Suk
Building Project Scope Definition Using Project
Definition Rating Index, 51
- Cho, Gye Chun
Unsaturated Particulate Materials—Particle-Level
Studies, 579
- Choi, Byung H.
see Yoo, Chai H., 1153
- Choi, Sang-il
see Lee, Kang-Kun, 498
- Choi, Ying-Kit, P.E.
RCC Mix Design—Soils Approach, 976
- Choi, Youngjae
see Gil, Heungbae, 76
- Chopra, Anil K.
Evaluation of NSP to Estimate Seismic Deformation:
SDF Systems, 7
- see* De la Llera, Juan C., 1128
- see* Lin, Wen-Hsiung, 1127
- Chou, L. M.
see Gin, K. Y. H., 546

Choudary, Kiran K.

see Peña-Mora, Feniosky, 201

Chouinard, Luc E.

see Andersen, Glen R., 599

see Andersen, Glen R., 600

Chow, W. K.

see Cui, E., 46

Chowdhary, H.

see Singh, R. D., 809

Chrisp, T. M.

see McCarter, W. J., 973

Christen, Evan

Design and Management of Subsurface Horizontal Drainage to Reduce Salt Loads, 876

Christian, John T.

see Youd, T. L., 644

Christie, Graham, P.E.

see Khouri, Jeff, P.E., 1561

Christophersen, Mette

see Poulsen, Tjalfe G., 447

Chrysanthopoulos, Marios K.

see Dymiotis, Christiana, 1106

Chu, Allyson K.

see Sanders, Brett F., 743

Chu, Angus

see Gibb, Angela, 531

Chu, Chia R.

see Tseng, Ming-Hseng, 679

Chu, Hsin

Catalytic Incineration of C_2H_5SH and its Mixture with CH_3SH over a Pt/Al_2O_3 Catalyst, 483

Chu, S. T.

see DeBoer, Darrell W., 887

Chu, W.

Photoreductive Model of Disperse Orange 11 in Aqueous Acetone and Triethylamine, 521

Chua, D. K. H.

Case-Based Reasoning Approach in Bid Decision Making, 214

Chuan, Choong Joo

see Pheng, Low Sui, 270

Chuang, S. H.

see You, S. J., 534

Chui, Stanley N. C.

see Li, Zongjin, 1001

Chun, Chan-Lan

Oil Spill Remediation Using Magnetic Separation, 484

Chun, Yoon-Moon

see Naik, Tarun R., 1477

Chung, Chen-hua

see Salas, Jose D., 786

Chung, Ha Woo

see Kim, Dae Sik, 1330

Chung, Il Moon

see Han, Il Yeong, 821

Chung, Jaewung

In-Plane Biaxial Crush Response of Polycarbonate Honeycombs, 299

Chung, Sang-Young

see Lee, Kang-Kun, 498

Chwang, Allen T.

see Zhu, Shutang, 312

see Zhu, Shutang, 316

Ciccolini, Anthony

see Yi, Ping, P.E., 187

Ciutina, Adrian

see Dubina, Dan, 1086

Civil Engineering Research Foundation

Evaluation Findings for Seismic Energy Products, L.P. Elastromeric Isolation Bearing, 1580

Evaluation of SSET: The Sewer Scanner & Evaluation Technology, 1581

Evaluation of the Trevipark Automated Parking System, 1582

Phase II Evaluation Findings: The Segmental Concrete Channel Bridge System, 1599

Summary of Evaluation Findings for 30-Meter Handheld and Mobile Pavement Marking Retroreflectometers, 1614

Civjan, Scott A., P.E.

Slab Effects in SMRF Retrofit Connection Test, 1098

Clare-Brown, D.

see Riley, M. J., 957

Clark, Jack I.

see Zhu, Fanyu, 627

Clark, Jordan F.

see Gamlin, Jeff D., 450

Clark, Robert M.

Predicting the Formation of Chlorinated and Brominated By-Products, 490

Clarke, Derek

see Anwar, Arif A., 864

Clary, Jane

see Strecker, Eric, 1350

Clausen, Arild H.

see Tryland, Tore, 1178

Clausen, Christian A., III

see Collins, Michelle M., 411

Clevenger, Thomas E.

see Gang, Dianchen, 1447

Cline, Steven R.

see Gates-Anderson, Dianne D., 472

Clouston, Peggi L., P.E.

Computational Modeling of Strand-Based Wood Composites, 375

Cloutier, A.

see Fafard, M., 371

AUTHOR INDEX

Costello

- Cobo del Arco, Diego**
Improving the Wind Stability of Suspension Bridges during Construction, 1171
- Preliminary Design of the Prestressed Concrete Stress Ribbon Bridge**, 83
- Cofer, W. F.**
see Peterson, S. T., 1121
see Peterson, S. T., 1122
- Cofer, William F.**
see Fridley, Kenneth J., 1120
- Cohn, L. F., P.E.**
see Harris, R. A., P.E., 1321
- Cohn, Louis F.**
Comparing Traffic-Noise Model Accuracy Using State-Specific Emission Data, 1329
- Coimbatore, Vijesh**
see Ganesan, Rajaram, 181
- Cokca, Erdal**
Use of Class C Fly Ashes for the Stabilization of an Expansive Soil, 622
- Cokgor, Sevkett**
see Sumer, B. Mutlu, 696
- Colborn, P. A.**
see Shelley, M. L., 566
- Colby, Jeffrey D.**
Simulation of a Costa Rican Watershed: Resolution Effects and Fractals, 1365
- Colello, Jeremy D.**
see Barros, Ana P., 673
- Coleman, J.**
Localization Issues in Force-Based Frame Elements, 1216
- Coleman, Stephen E.**
New Zealand Bridge Scour, 716
- Colla, C.**
Radar Testing of a Masonry Composite Structure with Sand and Water Backfill, 87
- Collins, Michelle M.**
Pilot-Scale Evaluation of H_2O_2 Injection to Control NOx Emissions, 471
- Collins, Thomas J., ed.**
Ports '01, 1601
- Collop, Andrew C.**
Assessing Variability of In Situ Pavement Material Stiffness Moduli, 1262
- Colomer, Jordi**
see Serra, Teresa, 558
- Colotti, Vincenzo**
Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates, 1114
- Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development**
Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering, and Technology, 930
- Condie, S. A.**
Estimating Stratification in Shallow Water Bodies from Mean Meteorological Conditions, 695
- Conge, Lisa M.**
see Hubbard, E. F., 691
- Connell, Robert J.**
Two-Dimensional Flood Plain Flow. II: Model Validation, 819
see Beffa, Cornel, 818
- Connor, Charles B.**
Estimation of Volcanic Hazards from Tephra Fallout, 1424
- Conrath, Edward J., P.E.**
see Norville, H. Scott, P.E., 47
- Consoli, Nilo C.**
see Schnaid, Fernando, 648
- Consoli, Nilo Cesar**
Behavior of Compacted Soil-Fly Ash-Carbide Lime Mixtures, 640
- Constantinou, Michael C.**
Toggle-Brace-Damper Seismic Energy Dissipation Systems, 1083
- Cook, R. A.**
Damping of Cantilevered Traffic Signal Structures, 1240
- Cook, W. D.**
see Griezic, A., 96
- Cooke, A. J.**
Biofilm Growth and Mineral Precipitation in Synthetic Leachate Columns, 647
- Cooke, Nigel**
see Zhang, Xudong (David), 1075
- Coon, Richard, P.E.**
see Bromley, Charles, P.E., 1510
- Cooper, C. David**
see Collins, Michelle M., 471
- Cooper, J. D.**
see Park, S. W., 108
- Corradini, C.**
see Govindaraju, Rao S., 791
- Corsi, Richard L.**
see Al-Rayes, Aghyad W., 457
see Koziel, Jacek A., 482
see Loehr, Raymond C., 1463
- Cosenza, E.**
see Pecce, M., 1005
- Cosenza, Edoardo**
Composites in Construction: A Reality, 1573
Shear and Normal Stresses Interaction in Coupled Structural Systems, 1080
- Costanzo, Francesco**
see Caiazzo, Anthony A., 353
- Costello, Laurence R.**
see Randrup, Thomas B., 838

- Cottrell, Wayne D.**
Empirical Freeway Queuing Duration Model, 1255
- Coulbaly, Paulin**
Multivariate Reservoir Inflow Forecasting Using Temporal Neural Networks, 815
- Coussy, Olivier**
see Mainguy, Marc, 344
see Ulm, Franz-Josef, 337
- Couto, A.**
see Ayuga, F., 403
- Covert, Kelly M.**
see Yamamuro, Jerry A., 598
- Cox, Chad**
see Andersen, Glen R., 599
- Cox, Chad W.**
see Andersen, Glen R., 600
- Cox, Robert F.**
see Zhu, Yimin, 191
- Crane, Cynthia E.**
Carbon Addition Reduced Lag Time for 2,4,6-Trichlorophenol Degradation, 524
- Cremona, Christian**
see Lukić, Mladen, 1096
- Creutin, D.**
see Dolciné, L., 771
- Crippen, J. J.**
see Sharp, R. R., 479
- Cristina, Xavier P.**
see Serra, Teresa, 558
- Criswell, Marvin E.**
see Grigg, Neil S., 1568
- Crittenden, Kathleen S.**
Can This Town Survive? Case Study of a Buried Philippine Town, 1428
- Croce, P.**
Stochastic Model for Multilane Traffic Effects on Bridges, 71
- Croley, Thomas E., II**
Climate-Biased Storm-Frequency Estimation, 805
- Croll, James G. A.**
Buckling of Cylindrical Tunnel Liners, 317
- Crovo, Daniel S.**
see Faraji, Susan, 612
- Cruz, Ana Maria**
Identifying Hurricane-Induced Hazardous Material Release Scenarios in a Petroleum Refinery, 1440
- Cruz, William**
Differences in Nonverbal Communication Styles between Cultures: The Latino-Anglo Perspectives, 935
- Cuesta, Isabel**
Inelastic Response Spectra Using Conventional and Pulse R-Factors, 1187
- Cui, E.**
Numerical Studies on Smoke Filling Process in an Airport Terminal, 46
- Cui, Lizheng**
Time-Dependent Poromechanical Responses of Saturated Cylinders, 325
- Cullen, Dominic M.**
Native American Imprint, 1543
- Culp, Gordon**
Understanding Psychological Type to Improve Project Team Performance, 944
- Culver, Teresa B.**
see Hilton, Amy B. Chan, 1369
- Cundall, Peter A.**
see Shimizu, Yoshiyuki, 377
- Cunha, A.**
Dynamic Tests on Large Cable-Stayed Bridge, 61
- Cunha, Maria da Conceição**
Hydraulic Infrastructures Design Using Simulated Annealing, 839
- Cunha, R. P.**
Investigation of Design Alternatives for a Piled Raft Case History, 629
- Curras, Christina J.**
Dynamic Experiments and Analyses of a Pile-Group-Supported Structure, 624
- Curtis, Steve**
see French, Richard H., 742
- Cutright, Teresa**
see Zavoda, Jennifer, 491
- Cywinski, Zbigniew**
Current Philosophy of Sustainability in Civil Engineering, 1051
- Dafalias, Yannis F.**
see Papadimitriou, Achilleas G., 660
- Dagher, J. J., P.E.**
Composites Enhance Timber Bridges, 1538
- Dahab, M. F.**
see Jillson, S. J., 1457
- Dai, Chao-Wei**
see Chiew, Sing-Ping, 1204
- Dai, Jingliang**
see Zheng, Chuanchao, 1267
- Dai, Tewei**
River Basin Network Model for Integrated Water Quantity/Quality Management, 1414
- Dallard, Pat**
London Millennium Bridge: Pedestrian-Induced Lateral Vibration, 104
- Dallimore, Chris J.**
Entrainment and Turbulence in Saline Underflow in Lake Ogawara, 756
- Dalrymple, Robert A., P.E.**
Shoring Up Coastal Engineering, 1496

- Dalziel, Erica**
Risk and Impact of Natural Hazards on a Road Network, 1273
- Dancey, C. L.**
see Papanicolaou, A. N., 301
- Dancygier, A. N.**
Shear Carried by Transverse Reinforcement in Circular RC Elements, 1079
Upper Limit to Compression Reinforcement Ratio in Flexural Elements, 1076
- Dandy, G. C.**
Optimal Scheduling of Water Pipe Replacement Using Genetic Algorithms, 1360
- Dangcong, Peng**
see Bernet, Nicolas, 462
- Daniel, Janice**
see Dixon, Karen K., P.E., 204
- Daniel, Jo Sias**
Laboratory Evaluation of Fatigue Damage and Healing of Asphalt Mixtures, 1024
- Darby, Jeannie L.**
see Loge, Frank J., 533
- Datta, Bithin**
see Mahar, Pooran Singh, 1338
- Datta, R. N.**
see Kalaga, Ramachandra Rao, 1279
- Datta, T. K.**
see Deoliya, Rajesh, 1211
- Davalos, Julio F.**
see Qiao, Pizhong, 1100
see Xu, X. Frank, 412
- Davaran, Ali**
Effective Length Factor for Discontinuous X-Bracing Systems, 290
- David, K. H. Chua**
Modeling Construction Operations with RISim, 209
- Davidow, Steven A.**
Reliability of Timber Fender Systems in Waterfront Facilities, 1099
- Davids, William G.**
Nonlinear Analysis of FRP-Glulam-Concrete Beams with Partial Composite Action, 1182
- Davidson, Rachel A.**
Comparing the Hurricane Disaster Risk of U.S. Coastal Counties, 1434
- Daviero, Greg**
see Roberts, Philip J. W., 685
- Davis, Cynthia F.**
see Wilson, Howard O., P.E., 1551
- Davis, Lawrence C.**
see Castro, Sigifredo, 1456
see Zhang, Qizhi, 1455
- Davis, Maureen L.**
see Bernold, Leonhard E., 240
- Davis, R. O.**
Pore Pressure and Dissipated Energy in Earthquakes—Field Verification, 594
- Davis, Tim**
Geotechnical Testing, Observation, and Documentation, 1585
- Davol, Andrew**
Flexural Behavior of Circular Concrete Filled FRP Shells, 1165
- Dawson, John W., III**
see Thackston, Edward L., 469
- de Boer, F.**
see Bakker, K. J., 1493
- De Cesare, Giovanni**
Impact of Turbidity Currents on Reservoir Sedimentation, 670
- de Felice, Gianmarco**
see Capecchi, Danilo, 380
- De Girolamo, Paolo**
see Beltrami, Gian Mario, 1410
- De la Llera, Juan C.**
Three-Dimensional Inelastic Response of an RC Building during the Northridge Earthquake, 1128
- De la Llera, Juan Carlos**
see Lin, Wen-Hsiung, 1127
- De Lorenzis, Laura**
Shear Strengthening of Reinforced Concrete Beams with FRP Rods, 155
- De Mattei, G.**
Cross-Sectional Classification for Aluminum Beams—A Parametric Study, 1103
- De Michele, C.**
Uncertainty Assessment of Regionalized Flood Frequency Estimates, 825
- De Saram, D. Darshi**
Construction Coordination Activities: What is Important and What Consumes Time, 963
- Deatherage, J. Harold**
see Burdette, Edwin G., 70
- DeBarry, Paul A.**
see Garbrecht, Jurgen, 831
see Ogden, Fred L., 832
- Debnath, Koustuv**
see Dey, Subhasish, 860
- DeBoer, D. W.**
Sprinkler and Corn Canopy Effects on Water Application Characteristics, 892
- DeBoer, Darrell W.**
Sprinkler Technologies, Soil Infiltration and Runoff, 887
- Dechakulsom, Montri**
see Ling, Hoe I., 657
- Deckard, M.**
see Pignolet, G., 25
- DeCou, Steven, P.E.**
see Bromley, Charles, P.E., 1510

- Deierlein, Gregory G.**
see El-Tawil, Sherif, 1147
see El-Tawil, Sherif, 1148
see Mehanny, Sameh S. F., 1191
- DeJong, Jason T.**
Effect of Surface Texturing on CPT Friction Sleeve Measurements, 585
- Del Giudice, Giuseppe**
Supercritical Flow in 45° Junction Manhole, 869
- Delaplace, Arnaud**
Avalanche Statistics of Interface Crack Propagation in Fiber Bundle Model: Characterization of Cohesive Crack, 352
- Delatte, Norbert J.**
Lessons from Roman Cement and Concrete, 1059
see Martin, Rachel, 1034
- Deleeuw, David N., P.E.**
Sharp Curves, 1530
- Delgado, R.**
see Cunha, A., 61
- Delgenès, Jean-Philippe**
see Bernet, Nicolas, 462
- Deliktas, Babur**
see Voyiadjis, George Z., 351
- Delleur, Jacques W., P.E.**
New Results and Research Needs on Sediment Movement in Urban Drainage, 1357
- Delmas, Yves**
see Li, Alex, 1115
- Delwar, M.**
see Papagiannakis, T., 190
- Demarchi, Sergio Henrique**
see Rakha, Hesham, 1307
- Denarié, E.**
Concrete Fracture Process Zone Characterization with Fiber Optics, 335
- Deng, Linzhong**
Nonlinear Flexural Behavior of Prestressed Concrete Girder Bridges, 89
Pseudoforce Method for Nonlinear Analysis and Reanalysis of Structural Systems, 1138
- Deng, Zhi-Qiang**
Longitudinal Dispersion Coefficient in Straight Rivers, 754
- Dennett, K. E.**
see Ravisangar, V., 495
- Dennis, John E.**
see Sethi, Sandeep, 489
- Deodatis, George**
Simulation of Highly Skewed Non-Gaussian Stochastic Processes, 427
- Deoliya, Rajesh**
Fatigue Reliability Analysis of Microwave Antenna Towers due to Wind, 1211
- Der Kiureghian, A.**
see Hong, K.-J., 407
see Royset, J. O., 347
- Der Kiureghian, Armen**
see Sasaki, Mehrdad, 1097
- Deutschman, Mark**
see Gu, Ruochuan, 1336
- Devinny, J.**
see Jahani, F., 500
see Jahani, F., 501
- DeWolf, John T.**
see Fu, Yongda, 57
- Dewoolkar, Mandar M.**
Seismic Behavior of Cantilever Retaining Walls with Liquefiable Backfills, 609
- Dexter, Robert J.**
Design, Specification, Installation, and Maintenance of Modular Bridge Expansion Joint Systems, 117
- Dexter, Robert J., P.E.**
see O'Connell, Heather M., 125
- Dey, A.**
see Mahadevan, S., 33
- Dey, Animesh**
see Tryon, Robert G., 31
- Dey, Subhasish**
Bank Profile of Threshold Channels: A Simplified Approach, 881
EDR in Circular Channels, 870
Sediment Pickup on Streamwise Sloping Beds, 860
- Dezi, Luigino**
Time-Dependent Analysis of Shear-Lag Effect in Composite Beams, 286
- Dhingra, S. L.**
see Shrivastav, Prabhat, 1297
- Dhir, Ravindra K.**
see Dyer, Thomas D., 1021
- di Prisco, Marco**
see Ferrara, Liberato, 356
- Díaz-Rodríguez, J. A.**
Mexico City Soil Behavior at Different Strains: Observations and Physical Interpretation, 641
- Dibike, Yonas B.**
Model Induction with Support Vector Machines: Introduction and Applications, 196
- Diekmann, James**
see Molenaar, Keith, 12
- Diekmann, James E.**
see Han, Seung H., 246
- Dietrich, B.**
see Lou, Z., 853
- Dietz, John D.**
see Collins, Michelle M., 471
- Dill-Langer, Gerhard**
see Aicher, Simon, 967
- Dilmore, Robert M.**
Autoclaved Aerated Concrete Produced with Low NO_x Burner/Selective Catalytic Reduction Fly Ash, 274

AUTHOR INDEX

Duyvestyn

- Dinehart, David W.
see Yost, Joseph R., 173
- Ding, Hongyan
Bucket Foundation Platforms Installed in Shallow and Ice-Drifting Area, 140
- Diplas, P.
see Papanicolaou, A. N., 301
- Diwanji, Vasant N.
see Patil, Ramappa G., 725
- Dixon, Karen K., P.E.
Tool for Rural and Statewide Multimodal Transportation Planning, 204
- Dobmeier, Jeffrey M.
Failure Study of an Aluminum Bridge Deck Panel, 1039
- Dobry, Richardo
see Youd, T. L., 644
- Dobson, Stephen
see Walker, Peter J., 1006
- Doering, J. C.
Laboratory Study of Anchor Ice Growth, 131
Turbine Discharge Measurement by the Velocity-Area Method, 738
- Dohmen-janssen, C. M.
see McLean, S. R., 1395
- Dolan, C. W.
see Hamilton, H. R., III, 162
- Dolciné, L.
Flash Flood Forecasting with Coupled Precipitation Model in Mountainous Mediterranean Basin, 771
- Dong, Ping
Wave Chronology Effects on Long-Term Shoreline Erosion Predictions, 1400
- Dong, Yue Xing
see Soh, Chee Kiong, 189
- Dong, Zhang
Fracture Properties of High-Strength Concrete, 978
- Dönmez, Senayi
Characteristics of a Density Current in a Cooling Lake Sidearm, 272
- Dormieux, Luc
Homogenization Approach of Advection and Diffusion in Cracked Porous Material, 425
- Dougherty, Bob, P.E.
see Ashley, Mark, P.E., 1527
- Douglas, Bruce M.
see Maragakis, Emmanuel "Manos", 98
- Dow, K. E.
see Doering, J. C., 131
- Dowd, J.
Bending Fatigue of Cable Stays, 126
- Downey, Chris
see O'Rourke, Michael, 1078
- Downton, Mary W.
Discretion without Accountability: Politics, Flood Damage, and Climate, 1436
- Dracup, John A.
see Piechota, Thomas C., 773
- Dreher, Scott T.
see Jones, Michael H., 100
- Drew, D. S.
see Cheng, Eddie W. L., 966
- Drew, Derek
see Skitmore, Martin, 228
- Drugge, H. Everett, P.E.
see Stamm, Roan, P.E., 1539
- Du, Shanyi
see Meng, Qingyuan, 324
- Duan, L.
see Zhou, S. P., 1107
- Duan, Lian
Section Properties for Latticed Members of San Francisco-Oakland Bay Bridge, 1
- Dubina, Dan
Cyclic Tests of Double-Sided Beam-to-Column Joints, 1086
- Duce, Pierpaolo
see Ventura, Francesca, 901
- Duchesne, Josée
see Mercier, Guy, 473
- Duff, A. Roy
see Suraji, Akhmad, 251
- Duke, Michael B.
Silicon PV Cell Production on the Moon, 26
- Dumas, Robert D.
see Harrison, Kenneth W., 178
- Duncan, J. Michael
Passive Earth Pressures: Theories and Tests, 592
see Esterhuizen, Jacob J. B., 645
see Filz, George M., 646
see Mokwa, Robert L., 588
- Dunn, James
Raising the Bar of BART, 1563
- Dupont, R. Ryan
see Hyman, Marve, 1586
- Durham, Jennifer
Seismic Resistance of Wood Shear Walls with Large OSB Panels, 1238
- Durrans, S. Rocky
see Burian, Steven J., 776
- Dutta, A.
Energy-Based Methodology for Ductile Design of Concrete Columns, 1229
- Duxbury, James P.
see Chini, Abdol R., 1316
- Duyvestyn, Glenn
see Knight, Mark, 849

- Dwyer, Stephen F.**
Finding a Better Cover, 1484
- Dyer, Thomas D.**
Chemical Reactions of Glass Cullet Used as Cement Component, 1021
- Dyke, Shirley J.**
see Yi, Fu, 413
- Dymiotis, Christiana**
Seismic Reliability of Masonry Infilled RC Frames, 1106
- Dysart, Joe**
Marketing Your Web Site, 1535
- Dyson, G. J.**
Monotonic Lateral Loading of Piles in Calcareous Sand, 601
- Earls, Christopher J.**
Single Angle Geometric Axis Flexural Compactness Criteria: Horizontal Leg Tension, 1143
- Easa, S. M.**
see Gibreel, G. M., 1256
- Easley, Thomas C.**
Moiré Interferometry Analysis of Fiber Debonding, 350
- Easson, W. J.**
see Martin, A. J., 1383
- Easton, Christopher**
see Sun, Darren Delai, 544
- Ebbs, Stephen**
Uranium Speciation, Plant Uptake, and Phytoremediation, 1454
- Eberhard, Marc O.**
see Barr, Paul J., 91
- Echelberger, Wayne F., Jr.**
see Mines, Richard O., Jr., 460
- Economopoulos, Alexander P.**
see Economopoulou, Alexia A., 571
see Economopoulou, Maria A., 430
- Economopoulou, Alexia A.**
Method for Estimating Size-Specific Particulate Emission Inventories, 571
- Economopoulou, Maria A.**
Graphical Sizing and Analysis of Ocean Outfalls with Buoyant Plumes, 430
- Edge, Billy L., ed.**
Coastal Engineering 2000, 1570
- Edil, Tuncer B.**
see Foose, Gary J., 617
see Goodhue, Marc J., 602
see Jo, Ho Young, 621
see Kim, Jae Y., 582
- Edinger, Peter**
see Nikolaou, Sissy, 120
- Edum-Fotwe, F.**
see Kululanga, G. K., 247
- Edwards, Marc**
see Scardina, Paolo, 551
- Edwards, Stuart, P.E.**
see Yang, Y. Jeffrey, P.E., 10
- Effler, Steven W.**
Modeling the Effects of Tripton on Water Clarity: Lake Champlain, 1361
see Gelda, Rakesh K., 528
see Gelda, Rakesh K., 1372
- Eftis, John**
see Osegueda, Roberto A., 34
- Eid, R.**
see Dancygier, A. N., 1076
- Eidinger, John M., ed.**
Gujarat (Kutch) India M7.7 earthquake of January 26, 2001 and Napa M5.2 earthquake of Sept. 3, 2000, 1591
- Eighmy, T. Taylor**
The Road to Reuse, 1545
- Eisenberger, Moshe**
see Busool, Wisam, 1217
- Eker, Serkan**
see Kargi, Fikret, 550
- El Fadel, M.**
see Ayoub, G. M., 454
- El-Assaly, Ashraf**
see Ariaratnam, Samuel T., 852
- Elbakkali, L.**
see Khamlichi, A., 321
- Elbeltagi, Emad**
see Ammar, Mohammad A., 207
- El-Beshry, Manar Z.**
Practical Modeling of SVE Performance at a Jet-Fuel Spill Site, 507
- Elci, S.**
see Work, P. A., 1412
- El-Dimeery, I. A.**
see Gibreel, G. M., 1256
- El-Diraby, Tamer E.**
Model for Evaluating Bridge Construction Plans, 258
- El-Fadel, M.**
Parking Facilities in Urban Areas: Air and Noise Impacts, 1325
- El-Fadel, Mutassem**
see Baaj, M. Hadi, 1335
- Elgar, Steve**
Wave Energy and Direction Observed Near Pier, 1380
- Elifrits, C. Dale**
see Santi, Paul M., 1524
- Elinwa, Augustine Uche**
Time-Overrun Factors in Nigerian Construction Industry, 261
- El-Kelesh, Adel M.**
Model of Compaction Grouting, 658

- Elkum, N. B.
see Soudki, K. A., 1023
- Ellingwood, Bruce
 Fragility Analysis of Concrete Gravity Dams, 840
- Ellingwood, Bruce R.
see McAllister, Therese P., 846
- Elmore, Andrew Curtis, P.E.
 Model-Predicted Groundwater Circulation Well Performance, 1462
- Elnashai, Amr S.
see Lee, Do Hyung, 1135
- El-Rayes, Khaled
 Impact of Rainfall on the Productivity of Highway Construction, 225
- Object-Oriented Model for Repetitive Construction Scheduling, 234
- Optimizing Resource Utilization for Repetitive Construction Projects, 212
- Optimum Planning of Highway Construction under A + B Bidding Method, 242
- El-Razek, Mohamed Emam Abd
 Constructability Improvement of Bridges Using Stepping Formwork, 235
- El-Saad, Adnan
see Cai, Chun S., 1478
- El-Sadek, Alaa
 Comparison of Models for Computing Drainage Discharge, 904
- El-Safty, Adel
see Zhang, Burong, 152
- El-Saidany, Hany A.
see Alshibli, Khalid A., 199
- El-Salakawy, E. F.
see Soudki, K. A., 1023
- El-Shorbagy, W.
see Lansey, K. E., 693
- El-Tawil, Sherif
 Nonlinear Analysis of Mixed Steel-Concrete Frames. I: Element Formulation, 1147
- Nonlinear Analysis of Mixed Steel-Concrete Frames. II: Implementation and Verification, 1148
- Static and Fatigue Analyses of RC Beams Strengthened with CFRP Laminates, 172
- Elton, David J.
 Soils Magic, 1606
- Elvin, David
 From Competitors to Partners, 1500
- Preparing for a Slowdown, 1491
- Small Firms, Big Dig, 1515
- Elwi, A.
see Mohareb, Magdi, 1306
- Elwi, A. E.
see Rashed, A., 13
- Elwi, Alaa E.
see Albert, Michael L., 151
- Emerick, Robert W.
see Loge, Frank J., 533
- Emerson, R. N.
see Peterson, S. T., 1121
- see* Peterson, S. T., 1122
- Emison, Gerald Andrews, P.E.
 Civil Engineers and Future Environmental Policies, 1062
- Engelhardt, M.
see Dandy, G. C., 1360
- Engelhardt, Michael D., P.E.
see Civjan, Scott A., P.E., 1098
- Engestrom, Michael F.
see Bjorhovde, Reidar, 1613
- England, Gordon, P.E.
 Success Stories of Brevard County, Florida Stormwater Utility, 1356
- Englehardt, J. D.
see Meeroff, D. E., 436
- English, Marshall, P.E.
see Licht, Louis, P.E., 1459
- Enright, Michael P.
 Maintenance Planning for Deteriorating Concrete Bridges, 3
- Entekhabi, Dara
see Socolofsky, Scott, 808
- Environmental and Water Resources Institute, American Society of Civil Engineers
 Comprehensive Transboundary International Water Quality Management Agreement, 1574
- Standard Guidelines for Artificial Recharge of Ground Water, 1608
- Eom, Junsik
 Live Load Distribution for Steel Girder Bridges, 111
- Erdöl, Ragıp
see Çaktıroğlu, Fevzi L., 291
- Erickson, Larry E.
see Castro, Sigifredo, 1456
- see* Zhang, Qizhi, 1455
- Erki, M.-A.
see Wight, R. G., 166
- Erki, Marie-Anne
see White, Timothy W., 160
- Ernst, Helmut
see Faraji, Susan, 612
- Ersahin, Tolga
see Hegazy, Tarek, 266
- see* Hegazy, Tarek, 267
- Eschenbach, Elizabeth A.
 Goal Programming Decision Support System for Multi-objective Operation of Reservoir Systems, 1347
- Esperet, J. P.
see Pignolet, G., 25
- Esposito, Carolyn
see Carr, Robert W., P.E., 1353

- Esrig, Melvin L., P.E.**
Lime Cement Column Ground Stabilization for I-15 in Salt Lake City, 1472
- Essila, Neil J.**
see Semmens, Michael J., 445
- Esterhuizen, Jacob J. B.**
Constitutive Behavior of Geosynthetic Interfaces, 645
see Filz, George M., 646
- Estes, Allen C.**
Bridge Lifetime System Reliability under Multiple Limit States, 116
- Ettema, R.**
Laboratory Observations of Ice Jams in Channel Confluences, 130
- Ettema, Robert**
see Kubit, Owen, 713
see Liggett, James A., 769
- Ettouney, Mohammed**
Frequency-Domain Analysis of Long-Span Bridges Subjected to Nonuniform Seismic Motions, 121
- Evans, Denise M.**
see Evans, Mark D., 1055
see Evans, Mark D., 1066
- Evans, Mark D.**
Community Service Project Planning for ASCE Student Chapters/ Clubs, 1066
Seven Keys to a Successful ASCE Student Chapter or Club: Guide for Student Leaders and Faculty Advisors, 1055
- Everett, Jess W., P.E.**
see Canty, Geoffrey A., 276
- Faber, Ben A.**
see Ventura, Francesca, 901
- Faber, K. T.**
see Easley, Thomas C., 350
- Facey, R. M., P.E.**
Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations, 132
- Faci, J. M.**
Comparison of Fixed and Rotating Spray Plate Sprinklers, 886
- Fadhil, N. M.**
see Hamidah, H. M., 171
- Faella, Ciro**
see Piluso, Vincenzo, 1151
see Piluso, Vincenzo, 1152
- Fafard, M.**
Three-Dimensional Viscoelastic Model with Nonconstant Coefficients, 371
- Fafitis, A.**
Interaction Surfaces of Reinforced-Concrete Sections in Biaxial Bending, 1168
- Fahnestock, Larry A.**
see Sause, Richard, 93
- Fahrion, Daniel**
see Jaselskis, Edward J., 215
- Fairbairn, D.**
see Taylor, G., 1247
- Fairweather, Virginia**
Towering Achievement, 1548
- Faisca, Renata G.**
Experimental Characterization of Viscoelastic Materials as Vibration Dampers, 389
- Falero, Jeffrey S., P.E.**
see Chaker, Amar A., 1518
- Fallon, Eric**
see Zavoda, Jennifer, 491
- Famiyesin, Olubayo O. R.**
Post-Finite Element Prediction Strategies for Engineering Structures, 1228
- Fan, Chao-Chin**
see Uang, Chia-Ming, 1188
- Fan, Chi-Yuan**
Sewer and Tank Flushing for Sediment, Corrosion, and Pollution Control, 1358
- Fan, Jerry J.**
see Leutheusser, Hans J., 715
- Fan, Sau Cheong**
see Zhao, Zhiye, 194
- Fan, Zhanfei**
Behavior of Steel Box Girders with Top Flange Bracing, 2
- Fang, D. P.**
Ancient Chinese Timber Architecture. I: Experimental Study, 1226
Ancient Chinese Timber Architecture. II: Dynamic Characteristics, 1227
- Fang, Fangxin**
Oil Containment by Boom in Waves and Wind. I: Numerical Model, 1404
Oil Containment by Boom in Waves and Wind. II: Waves, 1405
Oil Containment by Boom in Waves and Wind. III: Containment Failure, 1406
- Fang, Herbert H. P.**
Acidification of Lactose in Wastewater, 532
see Lau, Ivan W. C., 511
- Fang, Wen-Hung**
see Hwang, Shyh-Jiann, 1074
- Fang, Zheng**
see Lo, Siu Ming, 40
- Fanning, Paul J.**
Ultimate Response of RC Beams Strengthened with CFRP Plates, 156
- Faraji, Susan**
Nonlinear Analysis of Integral Bridges: Finite-Element Model, 612
- Farhan, Saady, PhD**
Interaction of Soil Air Permeability and Soil Vapor Extraction, 434
- Farnsworth, Jerry L.**
see Vallero, Daniel A., 549

AUTHOR INDEX

Ford

- Farr, John V., P.E.**
Commodities and Value Based Pricing of Engineering Services, 965
- Farrell-Poe, Kathryn L.**
see Zerihun, Dawit, 878
- Fassman, Elizabeth A.**
see Yu, Shaw L., 1354
- Faur-Brasquet, Catherine**
Neural Network Modeling of Organics Removal by Activated Carbon Cloths, 540
- Favier, J. F.**
Modeling Nonspherical Particles Using Multisphere Discrete Elements, 391
- Featherstone, W. E.**
Combined Analysis of Real-Time Kinematic GPS Equipment and its Users for Height Determination, 1245
- Feijt, Tom**
see Vandevivere, Philippe, 529
- Fell, Robin**
see Foster, Mark, 606
- Fennessey, Lawrence A. J., P.E.**
Changes in Runoff due to Stormwater Management Pond Regulations, 810
- Fente, Javier**
see Rebeiz, Karim S., 1029
- Fenves, Steven J.**
Role of ASCE in the Advancement of Computing in Civil Engineering, 200
- Ferentinou, M.D.**
see Sakellariou, M. G., 1422
- Fernandez, Bonifacio**
see Salas, Jose D., 786
- Fernández-Pereira, Constantino**
see Moreno, Natàlia, 555
- Ferrara, Liberato**
Mode I Fracture Behavior in Concrete: Nonlocal Damage Modeling, 356
- Feyen, Jan**
see El-Sadek, Alaa, 904
- Ffolliott, Peter F.**
see Lopes, Vicente L., 1340
- Ficara, Elena**
pH-Stat Titration to Assess Nitrification Inhibition, 515
- Field, David**
see Powell, David, 1557
- Field, Richard**
see Fan, Chi-Yuan, 1358
- Fife, William A., P.E.**
The Future of Airports, 1487
- Filiatrault, Andre**
see Folz, Bryan, 1123
- see* Paquette, Jocelyn, 1137
- Filz, George M.**
Progressive Failure of Lined Waste Impoundments, 646
see Esterhuizen, Jacob J. B., 645
- Finch, Gordon R.**
see Li, Hanbin, 486
see Li, Hanbin, 503
- Finke, Kimberly A.**
Piezocone Penetration Testing in Atlantic Piedmont Residuum, 575
- Finn, W. D. Liam**
see Youd, T. L., 644
- Finnie, John**
Bibliography for Teaching Hydraulic Design, 770
Hydraulic Design Example—Canal and Pipeline Inlet, 767
- Fioravante, V.**
see Hueckel, T., 655
- Fish, Jacob**
Higher-Order Homogenization of Initial/Boundary-Value Problem, 420
- Fisher, John**
see Mao, Changshi, 1190
- Fitzback, Josée**
see Fortin, Jean-Pierre, 784
see Fortin, Jean-Pierre, 785
- Fitzpatrick, Tony**
see Dallard, Pat, 104
- Flanagan, Roger D.**
In-Plane Analysis of Masonry Infill Materials, 1479
- Fleming, Chris A.**
see Li, Bin, 1382
- Flerchinger, G. N.**
see Xiuqing, Zheng, 880
- Flint, Anthony**
see Dallard, Pat, 104
- Floren, Amy**
Performance-Based Design Approach in Seismic Analysis of Bridges, 59
- Flug, Marshall, ed.**
Watershed Management & Operations Management 2000, 1620
see Campbell, Sharon G., 1367
- Folz, Bryan**
Cyclic Analysis of Wood Shear Walls, 1123
- Fontane, Darrell G.**
see Grigg, Neil S., 1568
- Fontoura, J. T. F.**
see Bittencourt, R. M., 971
- Foose, Gary J.**
Predicting Leakage through Composite Landfill Liners, 617
- Ford, David T.**
Flood-Warning Decision-Support System for Sacramento, California, 1364

- Ford, Elizabeth M.**
see Yoo, Chai H., 1153
- Forde, M. C.**
see Colla, C., 87
- Forrester, Kevin**
 Surface Drainage for Slope Stabilization, 1615
- Fortin, Jean-Pierre**
 A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. I: Description of Model, 784
 A Distributed Watershed Model Compatible with Remote Sensing and GIS Data. II: Application to Chaudière Watershed, 785
- Fortner, Brian**
 A Glass Act, 1482
 Nuclear Shutdown, 1501
 Parkway Payoff, 1564
 Pushing Back, 1523
- Foschi, Ricardo O.**
see He, Ming, 1175
see Horyna, Tomas, 63
- Foster, Mark**
 Assessing Embankment Dam Filters That Do Not Satisfy Design Criteria, 606
- Foster, Stephen J.**
 Strength and Ductility of Fiber-Reinforced High-Strength Concrete Columns, 1072
- Fox, Patrick J.**
see Triplett, Eric J., 620
- Foxworthy, John**
 Megaproject Management, 1559
see Alcorn, Alan E., P.E., 1560
see Jones, Stacey G., P.E., 1558
- Frabizzio, Michael A.**
see Rebeiz, Karim S., 1029
- François, R.**
see Belaid, F., 1027
- Frangopol, Dan M.**
 Reliability-Based Life-Cycle Management of Highway Bridges, 176
 US-Japan Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems (1st: 2000: Honolulu, Hawaii), 1619
see Enright, Michael P., 3
see Estes, Allen C., 116
see Imai, Kiyohiro, 103
- Frank, K. H.**
see Dowd, J., 126
- Frankenstein, Susan**
 Wave-Ice Interactions in Barents Sea Marginal Ice Zone, 133
- Franklin, Nathan M.**
see Connor, Charles B., 1424
- Frauenhoffer, John**
 Bad Engineering Yields Even Worse Lawsuits, 1049
- Fredrich, Augustine J., ed.**
see Rogers, Jerry R., ed., 1594
- Fredrickson, Stephen**
see Whittaker, William, 23
- Fredsøe, J.**
see Sumer, B. M., 1393
- Fredsøe, Jørgen**
see Jensen, Jacob Hjelmager, 1411
see Sumer, B. Mutlu, 696
see Sumer, B. Mutlu, 705
- Freedman, Vicky L.**
 Parameter Identifiability for Three Sediment Entrainment Equations, 868
- French, Richard H.**
 Estimating the Depth of Deposition (Erosion) at Slope Transitions on Alluvial Fans, 742
- Freundlich, Alex**
see Duke, Michael B., 26
- Frevert, Donald, ed.**
see Flug, Marshall, ed., 1620
- Fridley, K. J.**
see Peterson, S. T., 1121
see Peterson, S. T., 1122
- Fridley, Kenneth J.**
 Reliability of Reused Sawn Lumber: Effect of Fastener Holes, 1120
see Davidow, Steven A., 1099
- Fritsch, Martin**
see Kohler, Andreas, 903
- Frommer, Greg**
see Yi, Ping, P.E., 187
- Frost, J. D.**
see Wang, L. B., 360
- Frost, J. David**
see DeJong, Jason T., 585
- Frostig, Y.**
see Rabinovitch, O., 315
see Rabinovitch, O., 376
see Rabinovitch, O., 1116
see Rabinovitch, O., 1164
- Fu, Chung C.**
 Torsional Analysis for Prestressed Concrete Multiple Cell Box, 283
- Fu, Kuan-Chen**
see Ren, Dafan, 305
- Fu, Yongda**
 Monitoring and Analysis of a Bridge with Partially Restrained Bearings, 57
- Fujimori, Hiroyuki**
see Oda, Masanobu, 608
- Fujino, Y.**
see Kitagawa, T., 411
- Fujino, Yozo**
see Omenzetter, Piotr, 405
see Wilde, Krzysztof, 287
- Fung, T. C.**
see Soh, C. K., 1085

AUTHOR INDEX

Gho

- see Toh, W. S., 1126
- see Toh, W. S., 1167
- Furuta, Hitoshi, ed.**
see Frangopol, Dan M., ed., 1619
- Fwa, T. F.**
Reexamining C- Φ Concept for Asphalt Paving Mix Design, 1261
- Regression Model for Back-Calculation of Rigid-Pavement Properties, 1299
- Gajer, Ruben**
see Ettouney, Mohammed, 121
- Galloway, P. D., P.E.**
Innovative Benefits in a Small Consulting Firm, 914
- Gambatese, John A., P.E.**
Dust Suppression Using Truck-Mounted Water Spray System, 216
- Gamlin, Jeff D.**
Large-Scale Tracing of Ground Water with Sulfur Hexafluoride, 450
- Ganeshan, Rajaram**
CITYWORK: Application of Collaborative Technologies for Infrastructure Management, 181
- Gang, Dianchen**
Factors Affecting Chromium(VI) Removal by Modified Poly(4-Vinylpyridine) Coated Silica Gel, 1447
- Ganguly, C.**
Simple Metal Sorption Model for Heterogeneous Sorbents: Application to Humic Materials, 9
- Gao, H.**
see Kulatilake, P. H. S. W., 422
- Gara, Fabrizio**
see Dezi, Luigino, 286
- Garbrecht, Jergen**
GIS and Distributed Watershed Models. I: Data Coverages and Sources, 831
see Ogden, Fred L., 832
- Garcia, Marcelo H.**
see Lopez, Fabian, 689
see López, Fabian, 704
- Gardarsson, S.**
Behavior of Sloped-Bottom Tuned Liquid Dampers, 308
- Garg, N. K.**
Integrated Physically Based Rainfall-Runoff Model using FEM, 794
- Garg, N. K.**
Optimal Spacing of Shallow Tube Wells in Relation to Conveyance Losses, 908
- Garlock, Maria M.**
see Ricles, James M., 1084
- Garrett, James H., Jr.**
see Kilicote, Han, 186
- Garvin, Michael J., P.E.**
see Wooldridge, Stephen C., P.E., 951
- Gaspar, Neil**
Micromechanic Formulation of Macroscopic Structures in a Granular Medium, 393
- Gassman, Sarah L.**
see Mpesha, Witness, 681
- Gates, Echo K.**
see Yazdani, Nur, 1030
- Gates, Todd M.**
see Yang, Y. Jeffrey, P.E., 10
- Gates-Anderson, Dianne D.**
Comparison of Potassium Permanganate and Hydrogen Peroxide as Chemical Oxidants for Organically Contaminated Soils, 472
- Gavin, K. G.**
see Lehane, B. M., 613
- Gazis, Denos C.**
see Liu, Chiu, P.E., 417
- Ge, Hanbin**
see Usami, Tsutomu, 1087
- Gelda, Rakesh K.**
Probabilistic Model of Ammonia and Toxicity Status for Urban Lake, 1372
- River Dissolved Oxygen Model with Zebra Mussel Oxygen Demand (ZOD), 528
see Effler, Steven W., 1361
- Gelinas, Marc**
see Knight, Mark, 849
- Gentry, Randall W., P.E.**
Use of GA to Determine Areas of Accretion to Semi-confined Aquifer, 737
- Gerber, Jonathan K.**
Evaluation of Drug Testing in the Workplace: Study of the Construction Industry, 263
- Gerbrandt, Ron, P.E.**
see Berthelot, Curtis, P.E., 1292
- Gernand, Jeff**
Practical Bedrock Aquifer Characterization Using Borehole Geophysics and Multi-Level Wells, 1452
- Gesualdo, A.**
Local Collapse in Soft Rock Bank Cavities, 665
- Ghaboussi, Jamshid**
see Haj-Ali, Rami, 362
see Kaklauskas, Gintaris, 1077
- Gharaibeh, Emhaidy S.**
see Frangopol, Dan M., 176
- Ghasemi, Majid**
see Joghataie, Abdolreza, 1225
- Ghidaoui, M. S.**
Stability Analysis of Velocity Profiles in Water-Hammer Flows, 714
- Ghiocel, Dan M.**
Stochastic Field Models for Aircraft Jet Engine Applications, 32
- Gho, W. M.**
see Soh, C. K., 1085

- Ghoneim, Mashhour, P.E.**
see Hamza, Mamdouh, P.E., 1494
- Ghosh, Ambarish**
 Microstructural Development in Fly Ash Modified with Lime and Gypsum, 975
- Ghosh, Ashok Kumar**
see Panda, Bikasha Chandra, 999
- Ghosn, Michel**
see Deng, Linzhong, 89
see Deng, Linzhong, 1138
- Gibb, Angela**
 Bioremediation Kinetics of Crude Oil at 5° C, 531
- Gibbons, Juel**
see Attoh-Okine, Nii O., P.E., 1332
- Gibbons, Juel S.**
see Burken, Joel G., 1458
- Gibreel, G. M.**
 Prediction of Operating Speed on Three-Dimensional Highway Alignments, 1256
- Gibson, G. E., Jr.**
see Griffith, A. F., 949
- Gibson, G. Edward, Jr.**
see Cho, Chung-Suk, 51
- Gierke, John S.**
see El-Beshry, Manar Z., 507
- Gil, Heungbae**
 Cable Erection Test at Pylon Saddle for Spatial Suspension Bridge, 76
- Gilchrist, M. D.**
see Hartman, A. M., 1302
- Gilchrist, Michael D.**
see Owende, Philip M. O., 1286
- Giles, Harry**
 Ties to Excellence, 1497
- Gill, Marc D., P.E.**
see Hauser, Victor L., P.E., 525
- Jimeno, O.**
see Rivas, F. J., 505
- Gin, K. Y. H.**
 Three-Dimensional Ecological-Evaluation Model for Singapore, 546
- Giofrè, Massimiliano**
 Non-Gaussian Wind Pressure on Prismatic Buildings. I: Stochastic Field, 1183
- Non-Gaussian Wind Pressure on Prismatic Buildings. II: Numerical Simulation, 1184**
- Girling, W. C.**
see Doering, J. C., 131
- Glagola, Charles R., P.E.**
 Recruitment and Retention of Civil Engineers in Departments of Transportation, 911
- Glaser, Steven D.**
see Ching, Jian-Ye, 574
- Glassco, Richard A.**
see Saka, Anthony A., P.E., 1296
- Godoy, Luis A.**
 Initiative to Strengthen Publications by Young Faculty, 1060
- Goel, Rakesh K.**
see Chopra, Anil K., 7
- Gögüş, M.**
 Effect of Particle Shape on Fall Velocity of Angular Particles, 748
- Gögüş, Mustafa**
see Kökpınar, Mehmet Ali, 740
- Goh, Anthony Teck Chee**
see Poh, Teoh Yaw, 668
- Goldsmith, Jane**
see Harris, R. A., P.E., 1321
- Gomez, José P.**
see Dobmeier, Jeffrey M., 1039
- Gong, Bingnian**
 Concrete-Steel Composite Coupling Beams. I: Component Testing, 1144
- Concrete-Steel Composite Coupling Beams: II: Subassembly Testing and Design Verification, 1145**
- Gong, Yan-Tao**
 Personal Experiences of Cost Control on the China Merchants Plaza Project, 927
- Gonzales, James R.**
see Rifai, Hanadi S., P.E., 14
- Gonzales, Miguel**
see Bayasi, Ziad, 1208
- Gooch, Gordon**
see Lever, James H., 134
- Goodhue, Marc J.**
 Interaction of Foundry Sands with Geosynthetics, 602
- Goodings, Deborah J.**
 Research versus Practice in Transportation Geotechnics: Can We Bridge the Chasm?, 1053
- Goodings, Deborah J., P.E.**
see Suah, Peter G., P.E., 1547
- Goodman, Ron H.**
see Gibb, Angela, 531
- Goodpasture, David W.**
see Burdette, Edwin G., 70
- Goodspeed, Charles H., P.E.**
see Yost, Joseph Robert, P.E., 145
- Goodwin, R. Andrew**
 Simulating Mobile Populations in Aquatic Ecosystems, 1377
- Goodyear, David, P.E.**
see Heacock, Jon, P.E., 1481
- Goranflo, Morgan**
see Eschenbach, Elizabeth A., 1347
- Gordon, Ekaterina**
 Optimal Extraction of Water from Regional Aquifer under Salinization, 1343
- Gordon, Sydney**
see Moschandreas, D. J., 537

AUTHOR INDEX

Guldal

- Goring, Derek
see Nikora, Vladimir, 680
- Gouvin, Pierre
see Iskander, Maged, P.E., 1046
- Govindaraju, Rao S.
Areal Infiltration Modeling over Soils with Spatially Correlated Hydraulic Conductivities, 791
see Chan, Ting Pong, 828
- Gowripalan, N.
see Hamidah, H. M., 171
- Graf, Walter H.
see Blanckaert, Koen, 746
- Graham, L. L.
Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels, 288
- Granju, J. L.
About Debonding of Thin Cement-Based Overlays, 982
- Gransberg, Douglas D.
see Molenaar, Keith R., 964
- Grant, Stanley B.
see Sanders, Brett F., 743
- Grassucci, Fabio
see Aprile, Alessandra, 1234
- Grathwohl, Peter
see Reckhorn, Sayonara Brederode Ferreira, 455
- Greco, D.
see Saccomanno, F. F., 1320
- Green, Carrie L.
see Sanders, Brett F., 743
- Green, M. F.
see Wight, R. G., 166
- Greimann, Blair P.
Two-Phase Flow Analysis of Concentration Profiles, 739
- Grey, Jerry
Technical Assessment of Space Solar Power Research Program, 22
- Griebenow, Robert R., ed.
Moving Through the Millennium: Automated People Movers VIII, 598
- Grierson, Donald
see Hegazy, Tarek, 249
see Zaneldin, Essam, 250
- Griezic, A.
Seismic Behavior and Retrofit of Outrigger Beam-Column Frames, 96
- Griffeath, David
see Pizarro, Gonzalo, 527
- Griffin, Steve
see Maji, Arup, 30
- Griffis, Larry G.
see Bjorhovde, Reidar, 1613
- Griffith, A. F.
Alignment during Preproject Planning, 949
- Griffiths, George
see Nikora, Vladimir, 680
- Grigas, Jonas
see Jaselskis, Edward J., 215
- Grigg, Neil S.
Civil Engineering Practice in the Twenty-First Century: Knowledge and Skills for Design and Management, 1568
- Griggs, Francis E., Jr.
150 Years of Civil Engineering in the United States of America, 1063
- Grigoriu, Mircea
see Giofrè, Massimiliano, 1183
see Giofrè, Massimiliano, 1184
- Grismer, M. E.
Regional Alfalfa Yield, ET, and Water Value in Western States, 874
see Bali, K. M., 873
- Grismer, M.E.
Reduced-Runoff Irrigation of Sudan Grass Hay, Imperial Valley, California, 899
- Grobler, Francois
see Ganeshan, Rajaram, 181
- Gromala, David S., P.E.
Evolving Toward Project-Specific Reliability: Are We Sure It's a Good Idea?, 1241
- Groom, Jeffrey L., P.E.
see Choi, Ying-Kit, P.E., 976
- Gross, John
see Uang, Chia-Ming, 8
- Gross, John L., P.E.
see Civjan, Scott A., P.E., 1098
- Gross, Shawn P.
see Yost, Joseph R., 173
- Grossi, R.
see Saccomanno, F. F., 1320
- Gu, Ruochuan
Hydrologic Assessment of Water Losses in River, 1336
- Guaita, M.
see Ayuga, F., 403
- Guan, Hong
see Lee, Kang-Kun, 1125
- Guan, J.
see Work, P. A., 1412
- Guan, Jiabao
see Aral, Mustafa M., 799
- Guan, Zhongwei
DVW—Local Reinforcement for Timber Joints, 1174
- Gudavalli, Rao
see Ting, C. K., 759
- Guines, Dominique
3D Finite-Element Simulation of a Square Silo with Flexible Walls, 401
- Guldal, Veysel
see Müftüoğlu, R. Ferruh, 789

- Gulliver, J. S.**
see Urban, A. L., 747
- Gulliver, John S.**
see Weiss, Peter T., 760
- Gunaratne, M.**
see Bandara, N., 1268
- see* Lou, Z., 853
- see* Thilakasiri, H. S., 573
- Guo, James C. Y.**
 Design of Circular Infiltration Basin under Mounding Effects, 1342
 Rain Catch under Wind and Vegetal Cover Effects, 774
 Rational Hydrograph Method for Small Urban Watersheds, 814
 Storage Volume and Overflow Risk for Infiltration Basin Design, 879
- Guo, Jia**
see Lua, Aik Chong, 541
- Guo, Pei J.**
see Wan, Richard G., 408
- Guo, Yiping**
 Hydrologic Design of Urban Flood Control Detention Ponds, 827
- Guo, Zaoyang**
see Arzif, Amjad J., 363
- Gupta, I. D.**
 Response Spectrum Superposition for Structures with Uncertain Properties, 303
- Gupta, V.**
see Robson, B. N., 81
- Gusella, Vittorio**
see Giofrè, Massimiliano, 1183
see Giofrè, Massimiliano, 1184
- Gustafsson, Per Johan**
see Serrano, Erik, 1176
- Guza, R. T.**
see Elgar, Steve, 1380
- Gyürék, Lyndon L.**
see Li, Hanbin, 486
- Ha, Won-Ik**
see Nam, Ki-Chan, 1398
- Haan, C. T.**
see Lansley, K. E., 693
see Tyagi, Aditya, 547
- Haan, Fred L., Jr.**
see Yalla, Swaroop K., 429
- Habib, Emad**
 Sampling Errors of Tipping-Bucket Rain Gauge Measurements, 792
- Hadipriono, Fabian C., P.E.**
 Forensic Study for Causes of Fall Using Fault Tree Analysis, 1043
- Hadipriono, Fabian C., P.E.**
 The Case of a Broken Plank, 1040
- Hag-Elsafi, Osman**
 New Procedure for Design of End Plates and Base ST-22486 Plates of Cantilevered Traffic Support Structures, 1203
- Hager, Willi**
see Akan, A. Osman, 690
- Hager, Willi H.**
see Del Giudice, Giuseppe, 869
- Hagerty, D. J.**
 Seepage Effects in Some Riprap Revetments, 718
- Haider, Tarek F., P.E.**
 Dam within a Dam, 1555
- Haimes, Yacov Y., ed.**
 Risk-Based Decisionmaking in Water Resources IX, 1603
- Haimes, Yacov Y.**
 Leontief-Based Model of Risk in Complex Interconnected Infrastructures, 835
- Haj-Ali, Rami**
 Simulated Micromechanical Models using Artificial Neural Networks, 362
- Haj-Ali, Rami**
 Three-Dimensional Micromechanics-Based Constitutive Framework for Analysis of Pultruded Composite Structures, 361
- Hajj, Muhammad R.**
see Stamos, Dimitrios G., PhD, 239
- Haktanir, Tefaruk**
 Ten-Stage Discrete Flood Routing for Dams Having Gated Spillways, 783
- see* Altun, Fatih, 1002
- Haldar, Achintya**
see Salazar, Alfredo Reyes, 1140
- Haldar, Achintya, P.E.**
see Huh, Jungwon, 1109
- Halling, Marvin W., P.E.**
 Dynamic Field Testing for Condition Assessment of Bridge Bents, 1090
- Hallmark, Shauna**
see Shadewald, Jerry K., 1334
- Halpin, Daniel**
see Zayed, Tarek M., 225
- Hamburger, Ronald O., P.E.**
see Piarepiekarz, Mark R., P.E., 1522
- Hamidah, H. M.**
 Absorption of Aramid Prestressing Rods in Aggressive Solutions, 171
- Hamilton, H. R., III**
 Flexural Capacity of Glass FRP Strengthened Concrete Masonry Walls, 162
- Hamlett, James M., P.E.**
see Fennessey, Lawrence A. J., P.E., 810
- Hammel, Wilhelm**
see Constantinou, Michael C., 1083
- Hammes, Frederik**
see Vandevivere, Philippe, 529

AUTHOR INDEX

Hartenstein

Hamoush, Sameer A.

Out-of-Plane Strengthening of Masonry Walls with Reinforced Composites, 158

Hampton, Katrina R., P.E.

Collaborative Multidisciplinary Design Optimization, 924

Hamza, Mamdouh, P.E.

Ancient Concept, Modern Context, 1494

Han, Hsiu C.

see Jaselskis, Edward J., 215

Han, Il Yeong

Abrupt Drawdown Observed in Sandstone-Shale Interbedded Layers Surrounding Underground LPG Cavern, 821

Han, Jian-Jun

see Hasebe, Norio, 370

Han, Jie

Simplified Method for Consolidation Rate of Stone Column Reinforced Foundations, 625

Han, S. W.

see Briaud, J. L., 581

Han, Seung H.

Approaches for Making Risk-Based GO/NO-GO Decision for International Projects, 246

Han, Seung Woon

see Briaud, Jean-Louis, 580

Hancher, Donn E., ed.

Civil Engineering Education Issues 2001, 1567

Construction and Materials Issues 2001, 1575

Hancock, G. J.

see Popovic, D., 1141

Hancock, Gregory J.

see Young, Ben, 1201

Handy, Richard L.

Does Lateral Stress Really Influence Settlement?, 628

Hanna, R. Blair

see Campbell, Sharon G., 1367

Hanna, Sherif

see Iskander, Magued G., P.E., 586

Hans, P. D.

see Doering, J. C., 738

Hansen, Kenneth

The Many Faces of RCC, 1503

Hansen, Michael, ed.

see Vipulanandan, C., ed., 1583

Hanson, Clayton L.

Clear-Sky Albedo Measured at Seven Rangeland Sites in Southwest Idaho, 834

New Weighing Mechanism for Precipitation Gauges, 780

Hanson, Hans, ed.

Coastal Dynamics '01, 1569

Hanson, James L., ed.

Soft Ground Technology, 1605

Hao, Hong

see Ma, Guowei, 328

Hao, Oliver J.

see Kim, Hyunook, 441

see Kim, Hyunook, 442

see Wan, Ho S., 451

Hao, Xiaodi

Model-Based Evaluation of Denitrifying P Removal in Two-Sludge System, 443

Hapij, Adam

see Ettouney, Mohammed, 121

Haran, B. S.

see Ramasubramanian, M., 968

Harbor, Jon

see Bhaduri, Budhendra, 1337

Harder, Leslie F., Jr.

see Youd, T. L., 644

Hargette, Andrea C.

Assessment of Fate of Manganese in Oxide-Coated Filtration Systems, 570

Harichandran, Ronald S.

see Chen, Mu-Tsang, 385

Harik, I. E.

see Robson, B. N., 81

Harkness, Edward L.

see Reffat, Rabee M., 1044

see Reffat, Rabee M., 1045

Harmelink, David J.

Linear Scheduling Model: Float Characteristics, 241

see Yamin, René A., 255

Harmon, Thomas C.

Thermally Enhanced Vapor Extraction for Removing PAHs from LampBlack-Contaminated Soil, 554

Harporth, Nina

see Peña-Mora, Feniosky, 942

Harries, Kent A.

see Papakonstantinou, Christos G., 170

see Pessiki, Stephen, 169

Harris, R. A., P.E.

State-Specific Vehicle Noise Emission Characteristics, 1321

Harris, Roswell A.

see Cohn, Louis F., 1329

Harrison, Kenneth W.

Decision Support Tool for Life-Cycle Based Solid Waste Management, 178

Harrison, Lisa M.

see Burken, Joel G., 1458

Hartani, T.

Drainage of Sloping Lands with Variable Recharge: Analytical Formulas and Model Development, 855

Hartenstein, Steven D.

see Sato, Chikashi, 506

- Hartman, A. M.**
Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue, 1302
- Hartman, Anton M.**
see Owende, Philip M. O., 1286
- Hartman, Ginger L.**
see Moglen, Glenn E., 829
- Hartzmann, Ronald J.**
see Hanson, Clayton L., 780
- Harvey, J.**
see Kurtis, K. E., 996
- Hasatani, T.**
see Mizumura, K., 800
- Hasebe, Norio**
Green's Function of Thermoelastic Mixed Boundary Value Problem for an Elliptic Hole, 370
- Hasham, Anthony S.**
see Rasmussen, Kim J., 1206
- Haskett, Trevor**
see Breukelman, Brian, P.E., 1562
- Hassan, Moataz**
see Iskander, Magued G., P.E., 163
- Hassan, W. N.**
see McLean, S. R., 1395
- Hassan, Waleed F.**
see Malkawi, Abdallah I. Husein, 634
- Hassan, Y.**
Establishing Practical Approach for Design Consistency Evaluation, 1291
- Hassanein, Zeina**
see Abdul-Malak, Mohamed-Asem U., 1038
- Hasselman, Timothy**
Quantification of Uncertainty in Structural Dynamic Models, 35
- Hastak, Makarand**
MSRP: Model for Station Rehabilitation Planning, 842
Risk Factors Affecting Management and Maintenance Cost of Urban Infrastructure, 843
- Hastings, Jason N.**
see Miller, Trent C., 114
- Hauser, Victor L., P.E.**
Natural Covers for Landfills and Buried Waste, 525
- Havanagi, Vasant G.**
see Kaniraj, Shenbaga R., 623
see Kaniraj, Shenbaga R., 1443
- Haws, David R., P.E.**
Improving Structural Response to Permanent Ground Displacement, 1467
- Hay, K. J.**
see Sullivan, P. D., 456
- Hayden, Nancy J.**
Activated Carbon for Removing Tetrachloroethylene from Alcohol Solutions, 568
- Hayden, William M., Jr.**
Face Value: The Silent Diversity Challenge, 929
- Hayden, William M., Jr., P.E.**
The Emerging Role of Project Management, 922
- Hayes, Charolett A.**
see Price, Cynthia B., 433
- Hays, Donald F., ed.**
Wetlands Engineering & River Restoration, 1621
- Hayter, E. J.**
see Work, P. A., 1412
- He, Ming**
Modeling Three-Dimensional Timber Light-Frame Buildings, 1175
- He, W. L.**
Control of Seismically Excited Cable-Stayed Bridge Using Resetting Semiactive Stiffness Dampers, 101
- He, Wenwei**
see Zhao, Zhiye, 194
- He, Yan-Xin**
see Tay, Joo-Hwa, 435
- He, Yidong**
see Chen, Hung-Liang "Roger", 278
- He, Yihong**
see Aref, Amjad J., 331
- Heacock, Jon, P.E.**
Cliff-Hanger, 1481
- Heald, John**
see McEwan, Ian, 721
- Healy, Robert, P.E.**
see Cary-Brown, Richard, P.E., 1495
- Heaney, James P.**
see Sample, David J., 1352
- Hearn, N.**
see Pantazopoulou, S. J., 143
- Hedström, Annelie**
Ion Exchange of Ammonium in Zeolites: A Literature Review, 512
- Heesom, David**
Effect of Grid Resolution and Terrain Characteristics on Data from DTM, 188
- Hegazy, Tarek**
Cost Optimization in Projects with Repetitive Nonserial Activities, 232
Improving Design Coordination for Building Projects. I: Information Model, 249
Simplified Spreadsheet Solutions. I. Subcontractor Information System, 266
Simplified Spreadsheet Solutions. II. Overall Schedule Optimization, 267
see Zaneldin, Essam, 250
- Heggen, Richard J.**
Normalized Antecedent Precipitation Index, 816
- Heijnen, Joseph J.**
see Hao, Xiaodi, 443
- Heineck, Karla Salvagni**
see Consoli, Nilo Cesar, 640

AUTHOR INDEX

Hisada

- Hellman, Jason B., P.E.**
see Elmore, Andrew Curtis, P.E., 1462
- Helminski, Gary**
see Hunkele, Lester M., III, P.E., 1516
- Helwany, Sam M. B.**
 Seismic Analysis of Segmental Retaining Walls. I: Model Verification, 636
 Seismic Analysis of Segmental Retaining Walls. II: Effects of Facing Details, 637
- Helwig, Todd A.**
see Fan, Zhanfei, 2
- Hemakumara, M. H.**
see Renault, D., 902
- Hemami, Ahmad**
see Blouin, Stéphane, 29
- Hendrickson, Chris**
see Kapila, Prashant, 961
see Matthews, H. Scott, 836
- Henkle, David, P.E.**
 Competitive Edge, 1529
- Henry, Elwood**
 Cost Analysis between SABER and Design Bid Build Contracting Methods, 253
- Hensey, Mel**
 Collective Excellence: Building Effective Teams, 1572
- Hensey, Mel, P.E.**
 Innovations and Best Practices: Leadership Development and Retention, 912
- Henze, Gregor P.**
 Building Energy Management as a Continuous Quality Control Process, 49
- Heppel, Peter**
see Liddell, Ian, 1525
- Herbers, T. H. C.**
see Elgar, Steve, 1380
- Hermann, Felix**
see De Cesare, Giovanni, 670
- Hermann, U. H.**
see Lu, Ming, 208
- Hermann, U. R.**
see AbouRizk, S., 271
- Hernandez, Mariano**
see Freedman, Vicky L., 868
- Herndon, Roy**
see Gamlin, Jeff D., 450
- Herrenknecht, Martin**
see Sager, Hans-Joachim, 1492
- Herrera, George**
 Diversity Is Smart Business for True Success, 936
- Hess, Amanda J.**
see Johnson, Peggy A., 683
- Hessen, Corey N., P.E.**
 Steps You Can Take to Hire, Keep, and Inspire Generation Xers, 913
- Hettiarachchi, S. L.**
see Urban, A. L., 747
- Hettiaratchi, J. P. A.**
see Stein, V. B., 1464
- Hettiaratchi, Joseph Patrick A.**
 Slurry-Phase Experiments as Screening Protocol for Bioremediation of Complex Hydrocarbon Waste, 1450
- Hewings, Geoffrey J. D.**
see Changnon, Stanley A., 1432
- Hey, R. D.**
see Johnson, P. A., 741
- Hey, Richard D.**
see Johnson, Peggy A., 683
- Heyder, Walt**
see Finnie, John, 770
- Heyder, Walter E., P.E.**
 New Engineer Training at Bureau of Reclamation, 762
- Heyes, D. M.**
see Smith, L., 395
- Heyliger, Paul**
 Anisotropic Elastic Constants: Measurement by Impact Resonance, 1014
- Heysfield, Ernest**
 Neoprene Bearing Pad Slippage at Louisiana Bridges, 58
see Avent, R. Richard, 1199
- Hibino, Yoshihisa**
see Shi, Zihai, 1195
- Hicks, R. G., ed.**
 LTTP Data: Making Something of It: Papers from the International Contest on LTTP Data Analysis 1998-1999, 1595
- Higashibata, Yasuo**
see Inoue, Kazuo, 1154
- Higgins, Christopher**
 Behavior of Composite Bridge Decks with Alternative Shear Connectors, 56
- Hikosaka H.**
see Fang, D. P., 1226
- Hikosaka, H.**
see Fang, D. P., 1227
- Hill, Brittain E.**
see Connor, Charles B., 1424
- Hills, D. A.**
see Porter, M. I., 298
- Hilton, Amy B. Chan**
 Sensitivity of Optimal Groundwater Remediation Designs to Residual Water Quality Violations, 1369
- Hipel, Keith W.**
see Seifi, Abbas, 1341
- Hisada, Makoto**
see Mohammed, Tarek Uddin, 993

Hiyassat, Mohammed A. Salem

Applying Modified Minimum Moment Method to Multiple Resource Leveling, 233

Hjelmstad, Keith D.

see Williamson, Eric B., 284

Ho, Danny C. K.

see Chan, Albert P. C., 221

see Chan, Albert P. C., 945

Hochanadel, Jeffrey P.

see Park, Byungkyu "Brian", 1295

Hodges, Ben R.

Simple Curvilinear Method for Numerical Models of Open Channels, 757

Hoek, Evert

Big Tunnels in Bad Rock, 635

Höflin, Lilian

see Aicher, Simon, 967

Hoit, Marc

Engineering Academic Diversity: It's the Nondiverse Who Need to Participate, 939

Holly, Forrest M., Jr.

see Greimann, Blair P., 739

Holsen, Thomas M.

see Farhan, Saady, PhD, 434

Holst, J. M. F. G.

see Sanad, A. M., 399

Holyoak, Nicholas M.

see Lam, William H. K., 1328

Hong, H. P.

Strength of Slender Reinforced Concrete Columns under Biaxial Bending, 1159

see Zhou, W., 1071

Hong, Jian-Hao

see Lu, Jau-Yau, 751

Hong, K.-J.

Seismic Interaction in Cable-Connected Equipment Items, 407

Hontoria, Ernesto

see Osorio, Francisco, 552

Hopperstad, O. J.

see De Matteis, G., 1103

Hopperstad, Odd S.

see Tryland, Tore, 1092

Hörman, Matthias

see Seim, Werner, 150

Horner, David A.

Large Scale Discrete Element Modeling of Vehicle-Soil Interaction, 398

Horng, Kuen-How

see Chu, Hsin, 483

Horst, Michael W.

see Johnson, Peggy A., 683

Horton, Thomas

see Dunn, James, 1563

Horvath, Arpad

see Matthews, H. Scott, 836

Horvath, Richard E., P.E.

see Haider, Tarek F., P.E., 1555

Horyna, Tomas

Response of Timber Bridge to Traffic Loading, 63

Hoshiro, Hideki

see Redon, Carl, 1019

Hossain, Nasser B.

Probabilistic Models of Damaging Deflections for Floor Elements, 1048

Hotchkiss, R. H., P.E.

Determining Irrigation Canal Seepage with Electrical Resistivity, 857

Hotchkiss, Rollin

see Finnie, John, 770

Hotchkiss, Rollin H.

Flow over a "Killer" Weir Design Project, 766

Hydraulic Engineering Education: Evolving to Meet Needs, 768

Hou, Edwin

see Chien, Steven, 1278

Hover, William H.

see Andersen, Glen R., 599

see Andersen, Glen R., 600

Howard, Anthony

Liner Lessons, 1552

Howell, Gregory

see Mitropoulos, Panagiotis, 237

Hsiao, Ling-en

see Tomasetti, Richard L., P.E., 1536

Hsieh, Chang-Liang

see Bai, Hsunling, 520

Hsu, C. L.

see You, S. J., 534

Hsu, C. T.

Flapping Instability of Vertically Impinging Turbulent Plane Jets in Shallow Water, 327

Hsu, Cheng-Tzu Thomas

see Navalurkar, Rajendra K., 992

Hsu, Chiang-An

see Tseng, Ming-Hseng, 679

Hsu, Chin-Tsau

see Kuang, Jun, 280

Hsu, I-yuang

Modeling Transport of Gaseous Ozone in Unsaturated Soils, 497

Hsu, Ming-Hsi

see Liu, Wen-Cheng, 1386

Hsu, R.

Helmert Method as Equivalent of Iterated Almost Unbiased Estimation, 1248

Hsu, Shaohua Marko

see Shieh, Chjeng-Lun, 671

AUTHOR INDEX

Ilozor

- Hsu, Thomas T. C.
see Mansour, Mohamad, 1232
- Hsu, Tung-Wen
Soil Friction Restraint of Oblique Pipelines in Loose Sand, 1263
- Hsu, Wen-Hung
see Twu, Sheng-Wen, 1390
- Hsueh, Chao-Kuang
see Huang, An-Bin, 605
- Hu, W. C.
Automated Least Squares Adjustment of Triangulation-Trilateration Figures, 1252
- Huang, An-Bin
Effects of Construction on Laterally Loaded Pile Groups, 605
- Huang, C.
see Ganguly, C., 9
- Huang, C. P.
see Weng, Chih-Huang, 569
- Huang, Chien Kun
see Chang, Moo Been, 440
- Huang, Dongzhou, P.E.
Dynamic Analysis of Steel Curved Box Girder Bridges, 113
- Huang, Ju-Chang
see Chen, Guang-Hao, 466
- Huang, Yen-Shih
see Shih, Naai-Jung, 48
- Hubbard, E. F.
Price Current-Meter Standard Rating Development by the U.S. Geological Survey, 691
- Huck, Frank
see Wu, Cheng-Tang, 330
- Huddleston, David H.
see Burg, Clarence O. E., 675
- Hueckel, T.
Aging of Oil/Gas Bearing Sediments, Their Compressibility and Subsidence, 655
- Hughes, William
see Dunn, James, 1563
see Guo, James C. Y., 879
- Hugo, Fred
see Chen, Dar-Hao, 1259
- Huh, Jungwon
Stochastic Finite Element-Based Seismic Risk of Nonlinear Structures, 1109
- Hui, Eddie C. M.
Measuring Affordability in Public Housing from Economic Principles: Case Study of Hong Kong, 1326
- Huijsmans, R.
see Westhuis, J., 1419
- Hulsén, Richard
see Powell, David, 1557
- Hunkele, Lester M., III, P.E.
The Pentagon Project, 1516
- Hunt, James R.
see Kao, Cindy S., 449
- Huszar, Eric J.
Contingent Valuation of Some Externalities from Mine Dewatering, 1375
- Hutchinson, Allan
see Rahimi, Hamid, 148
- Huynh, Truc
Suspension Bridge Flutter for Girders with Separated Control Flaps, 74
- Huyse, Luc
Random Field Modeling of Elastic Properties Using Homogenization, 281
- Huyton, P.
Buckling of Skew Plates with Continuity or Rotational Edge Restraint, 28
- Hvitved-Jacobsen, Thorkild
see Barbosa, Ana Estela, 557
- Hwang, Jin-Hung
Ground Response during Pile Driving, 656
- Hwang, Jyh Feng
see Bai, Hsunling, 520
- Hwang, Shao-Ting
see Leu, Sou-Sen, 243
- Hwang, Shyh-Jiann
Analytical Model for Predicting Shear Strength of Squat Walls, 1074
- Hwang, Yongwoo
see Seo, Seongwon, 260
- Hwu, Tzong-Yih
Application of Riemann-Green Functions on Solving Linearized de Saint Venant Equations, 322
- Hyman, Marve
Groundwater and Soil Remediation: Process Design and Cost Estimating of Proven Technologies, 1586
- Hynes, Mary Ellen
see Youd, T. L., 644
- Ibbs, C. William
Project Change Management System, 958
- Idriss, I. M., ed.
see Mitchell, James Kenneth, 1571
see Youd, T. L., 597
see Youd, T. L., 644
- Ignatiev, Alex
see Duke, Michael B., 26
- Igwe, Odinaka
see Akpan, Edem O. P., 254
- Illangasekare, Tissa
see Bielefeldt, Angela R., 563
see Ramaswami, Anu, 562
- Ilozor, B. D.
Understanding Concepts of Efficiency and Effectiveness in Architectural Facilities Space Planning and Design, 52
- Ilozor, D. B.
see Ilozor, B. D., 52

Imai, Kiyohiro

Reliability-Based Assessment of Suspension Bridges:
Application to the Innoshima Bridge, 103

Imberger, Jörg

see Dallimore, Chris J., 756

see Hodges, Ben R., 757

Imbsen, Roy A., P.E.

Use of Isolation for Seismic Retrofitting Bridges, 106

Imran, Iswandi

Plasticity Model for Concrete under Triaxial Compression, 310

Imran, Jasim

1D Numerical Model of Muddy Subaqueous and Sub-aerial Debris Flows, 758

Indraratna, B.

Laboratory Measurement of Two-Phase Flow Parameters in Rock Joints Based on High Pressure Triaxial Testing, 619

see Blunden, B., 584

Indraratna, Buddhima

see Locke, Mark, 618

Ing, Nita

The Implementation of the Taiwan High-Speed Rail Project as a Private-Sector Venture: Opportunity and Challenges, 926

Iñigo, A. C.

Effect of Treatments on Pore Network of Granites, 989

Inoue, Kazuo

Stiffening Requirements for Unbonded Braces Encased in Concrete Panels, 1154

Iocco, A.

see Denarié, E., 335

Iori, Ivo

see Belletti, Beatrice, 1233

İpekçi, O. N.

see Göğüş, M., 748

Isaacs, Beatrice, P.E.

Mystery of the Missing Women Engineers: A Solution, 1057

Isakovic, T.

see Saiidi, M., 92

Iseki, Hiroyuki

see Lejano, Raul P., 1327

Iseley, Tom

see Wirahadikusumah, Reini, 844

Ishihara, Kenji

see Youd, T. L., 644

Ishikawa, Tadaharu

see Dallimore, Chris J., 756

Isidore, Leroy J.

Probabilistic Optimal-Cost Scheduling, 262

Iskander, Magued, P.E.

Instrumentation and Monitoring of a Distressed Multistory Underground Parking Garage, 1046

Iskander, Magued G., P.E.

Accelerated Degradation of Recycled Plastic Piling in Aggressive Soils, 163

Driveability of FRP Composite Piling, 586

Isleyen, Mehmet

see Ramaswami, Anu, 562

Ismael, Nabil F.

Axial Load Tests on Bored Piles and Pile Groups in Cemented Sands, 639

Issa, Mousa

see Tawfiq, Kamal, 78

Issa, Raja R. A.

see Zhu, Yimin, 191

Ito, Hitoshi

see Nakamura, Tsuneyoshi, 1139

Ito, K.

Decision Support System for Surface Water Planning in River Basins, 1366

see Xu, Zongxue, 197

Ivan, John N.

Regional and Area-Type Modeling of Peak Spreading on Connecticut Freeways, 1281

Ivanović, S. S.

see Trifunac, M. D., 1133

see Trifunac, M. D., 1132

Iványi, P.

see Topping, B. H. V., 193

Iwasaki, S.

see Fang, D. P., 1226

see Fang, D. P., 1227

Iyengar, K. T. Sundara Raja

Analytical Study of Fracture in Concrete Beams Using Blunt Crack Model, 373

Iyengar, N. G. R.

see Singh, Bhriugu N., 378

Jaafaari, Ali

see Chaaya, Michel, 947

Jaafari, Ali

VIRCON: Interactive System for Teaching Construction Management, 218

Jackson, Kevin

see Harmon, Thomas C., 554

Jaffe, David A.

Engineered Levee Breaches for Flood Mitigation, 711

Jafri, S.

Cold-Air Distribution Comparison for Four Supply Air Diffusers, 37

Jahani, F.

Investigations of Sulfuric Acid Corrosion of Concrete. I: Modeling and Chemical Observations, 500

Investigations of Sulfuric Acid Corrosion of Concrete. II: Electrochemical and Visual Observations, 501

Jain, Sharad Kumar

Development of Integrated Sediment Rating Curves Using ANNs, 672

AUTHOR INDEX

Jones

- Jakrapiyanun, Warrasak**
see Ashford, Scott A., 149
- Jakubowski, Steve**
see Taylor, Craig E., 1439
- James, David E., P.E.**
see Gambatese, John A., P.E., 216
- James, Harry Lee, P.E.**
see Deleeuw, David N., P.E., 1530
- James, L. Douglas**
Lessons from Grand Forks: Planning Nonstructural Flood Control Measures, 1438
Lessons from Grand Forks: Planning Structural Flood Control Measures, 1423
- Jamieson, I.**
see Murphy, M., 1008
- Jamiolkowski, Michele**
Vertical Yield Stress of Pisa Clay from Piezocone Tests, 652
- Jansen, Daniel C.**
see Palmquist, Shane M., 1018
- Janssen-Jurkovicová, Maria**
see Moreno, Natàlia, 555
- Janz, Márten**
Technique for Measuring Moisture Storage Capacity at High Moisture Levels, 1015
- Jaselskis, Edward J.**
Status of Roller Mountable Microwave Asphalt Pavement Density Sensor, 215
- Jáuregui, David V.**
see Malek, Amir M., P.E., 79
- Jeng, D. S.**
Stresses and Deformation of Buried Pipeline under Wave Loading, 1305
- Jensen, David W.**
see Pai, Suresh P., 17
see Pai, Suresh P., 18
- Jensen, H. René**
see Babovic, Vladan, 684
- Jensen, Jacob Hjelmager**
Sediment Transport and Backfilling of Trenches in Oscillatory Flow, 1411
- Jensen, James N.**
Approach to Steady State in Completely Mixed Flow Reactors, 431
- Jergeas, George, P.E.**
Benefits of Constructability on Construction Projects, 244
- Jewell, Thomas K., P.E.**
Teaching Hydraulic Design Using Equation Solvers, 765
- Jeyaseelan, S.**
see Chen, Xiaoge, 502
- Jia, Yafei**
Simulation of Scour Process in Plunging Pool of Loose Bed-Material, 688
- Jiang, Lei**
see Li, Ping, 519
- Jiang, Pu**
see Haimes, Yacov Y., 835
- Jiang, Tao**
see Juang, C. Hsein, 632
- Jiang, Y. W.**
see Chau, K. W., 676
- Jillson, S. J.**
Pathogen and Pathogen Indicator Removal Characteristics in Treatment of Wetland Systems, 1457
- Jiménez, Blanca E.**
Environmental Engineering in Mexico, 1056
- Jinno, K.**
see Ito, K., 1366
- Jo, Ho Young**
Hydraulic Conductivity and Swelling of Nonprehydrated GCLs Permeated with Single-Species Salt Solutions, 621
- Jobson, Harvey E., P.E.**
Predicting River Travel Time from Hydraulic Characteristics, 753
- Joghataie, Abdolreza**
Fuzzy Multistage Optimization of Large-Scale Trusses, 1225
- Johansen, Peter K.**
see Ramaswami, Anu, 562
- Johnson, David E.**
Residential Land Development Practices: A Textbook on Development Land Into Finished Lots, 1602
- Johnson, David L.**
see Effler, Steven W., 1361
- Johnson, Lynn E.**
see Ogden, Fred L., 832
- Johnson, Michael C.**
see Savage, Bruce M., 726
- Johnson, P. A.**
Use of Vanes for Control of Scour at Vertical Wall Abutments, 741
- Johnson, Peggy A.**
Aggradation at Bridges, 683
- Johnston, Archie J.**
see Fang, Fangxin, 1404
see Fang, Fangxin, 1405
see Fang, Fangxin, 1406
- Jones, J.**
see Jafri, S., 37
- Jones, Jonathan**
see Strecker, Eric, 1350
- Jones, Michael H.**
BART SFO Extension Aerial Guideways: Using Nonlinear Analysis to Control and Minimize Seismic Damage, 100
- Jones, N. P.**
see Main, J. A., 102

- Jones, Nicholas P.**
Theory and Full-Bridge Modeling of Wind Response of Cable-Supported Bridges, 99
- Jones, Robert M., P.E.**
see Ashley, Mark, P.E., 1527
- Jones, Stacey G., P.E.**
Twenty-First Century Terminal, 1558
- Jong, Jyh-Cherng**
Genetic Algorithm for Selecting and Scheduling Interdependent Projects, 1385
see Lovell, David J., 1289
- Jordan, Eric A.**
see Hettiaratchi, Joseph Patrick A., 1450
- Joshi, R. G.**
see Gupta, I. D., 303
- Joshi, Ramesh C.**
see Hettiaratchi, Joseph Patrick A., 1450
- Joshua, Mangvwat**
see Elinwa, Augustine Uche, 261
- Jousset, Stéphane**
Soil Nitric Oxide Emissions from Nitrification and Denitrification, 470
see Tabachow, Ross M., 493
- Joyce, James J.**
see Fan, Chi-Yuan, 1358
- Juang, C. Hsein**
Probabilistic Framework for Liquefaction Potential by Shear Wave Velocity, 632
- Kabat, Scott**
see Yalla, Swaroop K., 429
- Kacimov, A. R.**
Calculation of Inflow and Outflow in Phreatic Aquifers, 856
Semipermeable Boundaries and Heterogeneities: Modeling by Singularities, 798
- Kadnar, Joy, P.E.**
see Yazdani, Nur, P.E., 72
- Kaempf, Markus**
see Licht, Louis, P.E., 1459
- Kaihatu, James M.**
Improvement of Parabolic Nonlinear Dispersive Wave Model, 1392
- Kainz, James**
see Yazdani, Nur, P.E., 72
- Kaiser, Henning**
see Bayasi, Ziad, 1208
- Kaklauskas, Gintaris**
Stress-Strain Relations for Cracked Tensile Concrete from RC Beam Tests, 1077
- Kalaga, Ramachandra Rao**
Allocation of Buses on Inter-Dependent Regional Bus Transit Routes, 1279
- Kalajian, M. A.**
see Cook, R. A., 1240
- Kalani, Jeff, P.E.**
Stabilizing a Crater Rim, 1546
- Kalogo, Y.**
Physical and Biological Performance of Self-Inoculated UASB Reactor Treating Raw Domestic Sewage, 452
- Kaluarachchi, Jagath J., ed.**
Groundwater Contamination by Organic Pollutants, 1587
- Kam, T. Y.**
see Wang, W. T., 409
- Kamat, Vineet R.**
Visualizing Simulated Construction Operations in 3D, 210
- Kamitani, T.**
see Minagawa, M., 185
- Kamnikar, Brian, P.E.**
Managing Petroleum Contaminated Soil: Department of Transportation Perspective, 564
- Kanellaidis, George**
see Taiganidis, Ioannis, 1288
- Kang, Leen S.**
Optimal Schedule Planning for Multiple, Repetitive Construction Process, 256
- Kang, Y. J.**
see Wen, Y. K., 1110
see Wen, Y. K., 1111
- Kangari, Roozbeh**
Construction Surety Bonding, 238
- Kaniraj, Shenbaga R.**
Behavior of Cement-Stabilized Fiber-Reinforced Fly Ash-Soil Mixtures, 623
Correlation Analysis of Laboratory Compaction of Fly Ashes, 1443
- Kao, Cindy S.**
Experimental Validation and Applications of a Fluid Infiltration Model, 449
- Kapila, Prashant**
Exchange Rate Risk Management in International Construction Ventures, 961
- Kappos, Andreas J.**
Effect of Foundation Type and Compliance on Seismic Response of RC Bridges, 69
see Dymiotis, Christiana, 1106
- Karabinis, Athanasios I.**
Plasticity Model for Reinforced Concrete Elements Subjected to Overloads, 1215
- Karbhari, Vistasp**
see Seim, Werner, 150
- Karbhari, Vistasp M.**
Materials Considerations in FRP Rehabilitation of Concrete Structures, 979
- Kareem, Ahsan**
see Chen, Xinzong, 410
see Chen, Xinzong, 1239
see Yalla, Swaroop K., 429
see Zhou, Yin, 1091

AUTHOR INDEX

Khu

- Kargi, Fikret**
Rotating-Perforated-Tubes Biofilm Reactor for High-Strength Wastewater Treatment, 550
- Karnawat, Sunil**
Effects of Preloading on Brittle Solids, 279
- Karuchit, Sudjit**
see Moschandreas, D. J., 537
- Kashyap, Deepak**
see Sharma, Anupma, 817
see Swamee, Prabhata K., 871
- Katopodes, Nikolaos D.**
see Bradford, Scott F., 885
- Katsumi, Takeshi**
see Jo, Ho Young, 621
- Kattan, Peter I.**
Decomposition of Damage Tensor in Continuum Damage Mechanics, 386
- Katul, Gabriel G.**
see Szilagyi, Jozsef, 1373
- Kavvas, M. Levent**
General Conservation Equation for Solute Transport in Heterogeneous Porous Media, 813
- Kawabata, Toshinori**
see Ling, Hoe I., 390
- Kawaguchi, Kouji**
see Kondoh, Munenobu, 75
- Kawamoto, Ken**
see Oda, Masanobu, 608
- Kawamura, A.**
see Ito, K., 1366
- Kawashima, Kazuhiko**
see MacRae, Gregory A., 68
- Kay, Dianne H., P.E.**
Service Life of Illinois Highway Noise Barriers Projected from Current Condition Survey, 1041
see Morgan, Susan M., P.E., 1282
- Kaysi, Isam A.**
see Abdul-Malak, Mohamed-Asem U., 845
- Kazama, S.**
see Sahoo, G. B., 897
- Keedwell, M. J.**
see Abyaneh, M. Y., 997
- Keillor, Philip**
see Blazquez, Carola A., 1415
- Keiter, Thorsten W. R.**
Numerical Aspects of FE Simulations of Granular Flow in Silos, 400
- Keitetsu, Rokugo**
see Minoru, Kunieda, 980
- Kelley, Paul L., P.E.**
Under the Microscope, 1520
- Kellogg, C. Gary, P.E.**
see Malits, Frank S., P.E., 1507
- Kelly, Harlan G.**
see Mavinic, Donald S., P.E., 468
- Kelly, Oliver**
see Fanning, Paul J., 156
- Kelly, W. E., P.E.**
see Hotchkiss, R. H., P.E., 857
- Kennedy, Brett**
see Whittaker, William, 23
- Kennedy, John B.**
see Sennah, Khaled M., 73
- Kennedy, Thomas W.**
see Lin, Huang-Hsiung, 1258
- Kermani, A.**
see Tait, C. J., 1011
- Kerour, Brahim**
see Guines, Dominique, 401
- Keru, Wu**
see Dong, Zhang, 978
- Kessler, Avner**
see Kronaveter, Lea, 1344
- Kestner, Justin T.**
see Pessiki, Stephen, 169
- Ketcham, Stephen A.**
see Goodings, Deborah J., 1053
- Khalaf, F. M.**
see Tait, C. J., 1011
- Khamlichi, A.**
Postbuckling of Elastic Beams Considering Higher Order Strain Terms, 321
- Khan, A. Hakeem**
see Renault, D., 902
- Khan, Liaqat Ali**
see Blumberg, Alan F., 5
- Khan, M. Q. I.**
International Classification and Codification of Watersheds and River Basins, 1368
- Khatib, Zaher**
Impacts of Analysis Zone Structures on Modeled State-wide Traffic, 1257
- Khatibi, Rahman H.**
Sample Size Determination in Open Channel Inverse Problems, 731
- Khatsuria, Rajnikant M.**
see Patil, Ramappa G., 725
- Khattak, Aemal J.**
Snow Event Effects on Interstate Highway Crashes, 141
- Khoshmanesh, Aazam**
Biomass of Sediment Bacteria by Sedimentation Field-Flow Fractionation, 432
- Khoury, Jeff, P.E.**
The Transportation Connection, 1561
- Khu, Soon-Thiam**
see Liong, Shie-Yui, 77

- Kihl, David P.**
see Sarkani, Shahram, 1108
- Kilburn, Peter**
see Sharma, Satish, 1308
- Kilic, Hakan**
see Haj-Ali, Rami, 361
- Kilicote, Han**
 Standards Usage Language (SUL), 186
- Kim, Byung J.**
see Alonso, Cristina, 510
- Kim, Byung R.**
see Alonso, Cristina, 510
- Kim, Dae Sik**
 Spatial Location-Allocation Model for Multiple Center Villages, 1330
- Kim, Dong Soo**
see Seo, Il Won, 674
- Kim, Hong Sik**
see Seo, Il Won, 674
- Kim, Hyeong-Yeol**
see Park, Sun-Kyu, 88
- Kim, Hyoseob**
 Modeling Effect of Intersection Angle on Near-Bed Flows for Waves and Currents, 1416
- Kim, Hyunook**
 SBR System for Phosphorus Removal: ASM2 and Simplified Linear Model, 441
 SBR System for Phosphorus Removal: Linear Model Based Optimization, 442
see Wan, Ho S., 451
- Kim, Inchul**
 Empirical Partitioning Leach Model for Solidified/Stabilized Wastes, 453
- Kim, Jae Y.**
 Volatile Organic Compound (VOC) Transport through Compacted Clay, 582
- Kim, Jeongkon**
 Oxygen Transfer at Low Drop Weirs, 504
- Kim, Jung-Hyuk**
see Park, Sun-Kyu, 88
- Kim, Moon-Young**
 Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. I: Theoretical Considerations Based on Semitangential Property, 367
 Spatial Postbuckling Analysis of Nonsymmetric Thin-Walled Frames. II: Geometrically Nonlinear FE Procedures, 368
- Kim, Seong J.**
see Yoo, Chulsang, 823
- Kim, Sung-Bo**
see Kim, Moon-Young, 368
- Kim, Sun-Pil**
see Kwak, Hyo-Gyoung, 1235
- Kim, Y. R.**
see Park, S. W., 970
- Kim, Y. Richard**
see Daniel, Jo Sias, 1024
- Kim, Yeook**
see Moschandreas, D. J., 537
- Kimura, K.**
see Kitagawa, T., 411
- Kincaid, G. P.**
see Urban, A. L., 747
- Kinnear, D. J., P.E.**
see Parker, D. S., P.E., 488
- Kinney, Kerry A.**
see Al-Rayes, Aghyad W., 457
see Park, Jungsu, 553
- Kiousis, Panos D.**
see Karabinis, Athanasios I., 1215
- Kirkner, David J.**
see Shen, Weixin, 358
- Kirtland, Brian C.**
 Long-Term AS/SVE for Petroleum Removal in Low-Permeability Piedmont Saprolite, 446
- Kirzhner, F.**
 Behavior of the Working Fluid in Mechanized Support in Permafrost, 138
- Kishor, Mehta C.**
 Guide to the Use of Wind Load Provisions of ASCE 7-98, 1589
- Kisi, Özgür**
see Haktanir, Tefaruk, 783
- Kissida, John**
 Cost-Effective Landfill Closure: Boston's "Menino Project", 1444
- Kitagawa, Makoto**
 Assessment of Cable Maintenance Technologies for Honshu-Shikoku Bridges, 105
- Kitagawa, T.**
 Wind Pressures on End-Cell-Induced Vibration of Circular Tower, 411
- Kitamura, Tadanori**
see Jia, Yafei, 688
- Kite, Alan, P.E.**
see Cary-Brown, Richard, P.E., 1495
- Kiwus, Christopher H., P.E.**
 Application of TQM to Environmental Construction, 960
- Kjeldsen, Peter**
see Poulsen, Tjalf G., 447
- Klankrong, Thongchai**
 Rethinking Bangkok's Wastewater Strategy, 1521
- Kleiner, Y.**
 Water Distribution Network Renewal Planning, 175
- Kleiner, Yehuda**
 Scheduling Inspection and Renewal of Large Infrastructure Assets, 850

AUTHOR INDEX

Kropp

- Kleinbans, Maarten G.**
Accuracy of Cross-Channel Sampled Sediment Transport in Large Sand-Gravel-Bed Rivers, 692
- Klinting, Anders**
see Babovic, Vladan, 684
- Kloiber, Larry A.**
see Bjorhovde, Reidar, 1613
- Klopp, Rick A.**
see Finke, Kimberly A., 575
- Knapp, Keith K.**
see Khattak, Aemal J., 141
- Knight, Mark**
Excavation of Surface Installed Pipeline, 849
- Knocke, William R.**
see Hargette, Andrea C., 570
- Knowles, P.**
see AbouRizk, S., 271
- Ko, Hon-Yim**
see Dewoolkar, Mandar M., 609
- Koch, Manfred**
see Sun, Hongbing, 735
- Kochian, Leon**
see Ebbs, Stephen, 1454
- Kodaira, A.**
see Sakumoto, Y., 1004
- Koehn, Enno**
Assessment of Communications and Collaborative Learning in Civil Engineering Education, 1064
- Koehn, Enno "Ed"**
Quality of Building Construction Materials (Cement) in Developing Countries, 43
- Koenders, M. A.**
see Gaspar, Neil, 393
- Koester, Joseph P.**
see Youd, T. L., 644
- Koh, C. G.**
see Liaw, C. Y., 1417
- Kohler, Andreas**
Functional Relationship to Describe Drains with Entrance Resistance, 903
- Kojiri, T.**
see Ito, K., 1366
- Kökpınar, M. A.**
see Göğüş, M., 748
- Kökpınar, Mehmet Ali**
Critical Flow Velocity in Slurry Transporting Horizontal Pipelines, 740
- Kolyshkin, A. A.**
see Ghidaoui, M. S., 714
- Kompfner, Tomas A., P.E.**
see Ashley, Mark, P.E., 1527
- Kondoh, Munenobu**
Design Method of a Hanger System for Long-Span Suspension Bridge, 75
- Kong, Jung S.**
see Frangopol, Dan M., 176
- Konrad, Christopher P.**
Hydrologic Mitigation Using On-Site Residential Storm-Water Detention, 1346
- Koopman, B.**
see Ayoub, G. M., 454
- Korom, Scott F.**
see James, L. Douglas, 1423
see James, L. Douglas, 1438
- Kose, Sadi**
see Masad, Eyad, 1315
- Kosho, Kazuani**
see Mase, Hajime, 1401
- Kostopoulos, V.**
see Pappas, Y. Z., 383
- Koubaa, Amir**
Assessing Frost Resistance of Concrete Aggregates in Minnesota, 139
- Kounadis, Anthony N.**
Nonclassical Stability Problems: Instability of Slender Tubes under Pressure, 16
- Kousta, Richard**
see Sample, David J., 1352
- Kovler, Konstantin**
Enhancing Water Resistance of Cement and Gypsum-Cement Materials, 1013
- Kowalsky, Mervyn J.**
RC Structural Walls Designed According to UBC and Displacement-Based Methods, 1131
- Koyanagi, W.**
see Matsushima, H., 984
- Koziel, Jacek A.**
Gas-Liquid Mass Transfer along Small Sewer Reaches, 482
- Kozola, Brian**
see Maji, Arup, 30
- Krajewski, Witold F.**
see Habib, Emad, 792
- Kraus, *udolph N.**
see Naik, Tarun R., 1477
- Kreger, Michael E.**
see Roberts-Wollmann, Carin L., 119
- Kremmer, M.**
see Favier, J. F., 391
- Krevet, Rasmus**
see Steingröver, Andreas, 1505
- Krishnamoorthy, C. S.**
see Thampan, C. K. Prasad Varma, 1180
- Kronaveter, Lea**
Water-Sensitive Urban Planning: Modeling On-Site Infiltration, 1344
- Kropp, Alan L.**
see Stewart, Jonathan P., 653

Krueger, Dalton, P.E.
Dual Benefits, 1542

Kruger, Anton
see Habib, Emad, 792

Ku, Y.
see Chang, C. Y., 543

Kuang, J.
see Hsu, C. T., 327

Kuang, Jun
Experiments on Vertical Turbulent Plane Jets in Water of Finite Depth, 280

Kubit, Owen
Debris- and Ice-Skimming Booms at Riverside Diversions, 713

Kudowor, A. Y. T.
see Taylor, G., 1247

Kulak, G. L.
see Mohareb, Magdi, 1306

Kulatilake, P. H. S. W.
Experimental and Numerical Simulations of Jointed Rock Block Strength under Uniaxial Loading, 422

Kulchawik, Robert J., P.E.
Taking Treatment to the Extremes, 1550

Kulhawy, Fred H.
see Prakoso, Widjojo A., 572

Kulikov, G. M.
Refined Global Approximation Theory of Multilayered Plates and Shells, 292

Kululanga, G. K.
Construction Contractors Claim Process Framework, 247

Kumar, Arvind
see Mekonen, Alemayehu, 463

Kumar, Pradeep
see Mekonen, Alemayehu, 463

Kumaraswamy, Mohan M.
see Zhang, Xue-qing, 229
see Zhang, Xue-Qing, 252
see Zhang, Xue-qing, 837

Kuo, Albert Y.
see Liu, Wen-Cheng, 1386

Kuo, C.
see Thilakasiri, H. S., 573

Kuo, Jan-Tai
see Yu, Shaw L., 1354

Kuo, Shiou-San
see Chini, Abdol R., 1316

Kuotcha, W.
see Kululanga, G. K., 247

Kurtis, K. E.
Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements, 996

Kurtz, Stephen
Comparison of Inorganic and Organic Matrices for Strengthening of RC Beams with Carbon Sheets, 1073

Kusakabe, Osamu
see Ueno, Katsutoshi, 595

Kutter, Bruce L.
see Curras, Christina J., 624

Kuzmanović, B. O.
Steel Single Box Ramp Bridges, 85

Kwak, Hyo-Gyoung
Nonlinear Analysis of RC Beam Subject to Cyclic Loading, 1235

Kwak, K. W.
see Briaud, J. L., 581

Kwak, Kiseok
see Briaud, Jean-Louis, 580

Kwak, Young Hoon
see Ibbs, C. William, 958

Kwan, W.-i.
Simulation of Structural Concrete under Cyclic Load, 1231

Kwicklis, Edward M.
see Lu, Ning, 643

Kwong, David, P.E.
see Kalani, Jeff, P.E., 1546

La Femina, Peter C.
see Connor, Charles B., 1424

Labadie, John W.
see Dai, Tewe, 1414

Labuz, Joseph F.
see Cattaneo, Sara, 1028

Lackner, Roman
Adaptive FE Analysis of RC Shells. I: Theory, 418
Adaptive FE Analysis of RC Shells. II: Applications, 419

Lade, Poul V.
Analysis of Shear Banding in True Triaxial Tests on Sand, 366
see Wang, Qiong, 365

Lai, D.
see Vecchio, F. J., 1112

Lai, J. S.
see Wang, L. B., 360

Lal, A. M. Wasantha
Modification of Canal Flow due to Stream-Aquifer Interaction, 719

Lam, Frank
see Durham, Jennifer, 1238
see He, Ming, 1175

Lam, Frank, P.E.
see Clouston, Pegg L., P.E., 375
see Schreyer, Alexander, 1173

Lam, Ignatius P.
see Law, Hubert K., 651

AUTHOR INDEX

Lee

- Lam, K. M.**
Experimental Simulation of a Vertical Round Jet Issuing into an Unsteady Cross-Flow, 702
- Lam, L.**
Strength of RC Cantilever Slabs Bonded with GFRP Strips, 167
- Lam, Tsun-lp**
see Cheung, Sai-On, 955
- Lam, William H. K.**
How Park-and-Ride Schemes Can Be Successful in Eastern Asia, 1328
- Laman, Jeffrey A.**
see Schwarz, Michael, 54
- Lambert, Kelly B.**
see Davidson, Rachel A., 1434
- Lamberti, Alberto**
see Zanuttigh, Barbara, 699
- Landolfo, R.**
see De Matteis, G., 1103
- Lane, S. N.**
Monitoring River Channel and Flume Surfaces with Digital Photogrammetry, 749
see Bradbrook, K. F., 701
- Langley, William G.**
Reaction Kinetics of Immobilized-Cell Denitrification. I: Background and Model Development, 513
see Wu, Jy S., 514
- Langseth, M.**
see De Matteis, G., 1103
- Langseth, Magnus**
see Tryland, Tore, 1092
- Lansey, K. E.**
Calibration Assessment and Data Collection for Water Distribution Networks, 693
- Larcher, Michele**
see Armanini, Aronne, 677
see Busnelli, Marcello M., 678
- Larsen, Hans Jørgen**
see Serrano, Erik, 1176
- Larson, Larry**
No Adverse Impact: New Direction in Floodplain Management Policy, 1437
- Larson, Magnus, ed.**
see Hanson, Hans, ed., 1569
- Lasdon, Leon S.**
see Cai, Ximing, 1374
- LaSota, David, P.E.**
see Fennessey, Lawrence A. J., P.E., 810
- Lau, Ivan W. C.**
Organic Removal of Anaerobically Treated Leachate by Fenton Coagulation, 511
- Lauchlan, Christine S.**
Riprap Protection at Bridge Piers, 706
- Law, Adrian Wing-Keung**
see Cheng, Nian-Sheng, 686
- Law, Hubert K.**
Application of Periodic Boundary for Large Pile Group, 651
- Law, Kincho H.**
see Sohn, Hoon, 416
- Law, S. S.**
Model Updating of Semirigid Jointed Structure Using Generic Parameters, 415
Regularization in Moving Force Identification, 294
- Lawler, Desmond F.**
see Koziel, Jacek A., 482
- Lawless, Allyson**
The Inherent Personality of Women as an Asset to the Engineering Workplace, 932
- Layne, Peggy**
Diversity by the Numbers, 938
- Le Cloirec, Pierre**
see Faur-Brasquet, Catherine, 540
- Leach, William D.**
Making Watershed Partnerships Work: A Review of the Empirical Literature, 1376
- Leavesley, George H.**
see Yates, David, 804
- Lebowitz, M. D.**
see Moschandreas, D. J., 537
- Lecote, Robert, P.E.**
Soil Moisture Profile Model for Two-Layered Soil Based on Sharp Wetting Front Approach, 790
- Ledbetter, Hassel**
see Heyliger, Paul, 1014
- Lee, Bae H.**
see Kang, Leen S., 256
- Lee, Cheol-Hyo**
see Lee, Kang-Kun, 498
- Lee, Cheol-Ho**
Analytical Modeling and Seismic Design of Steel Moment Connections with Welded Straight Launch, 1189
- Lee, Cheol-Hyo**
Attenuation of Petroleum Hydrocarbons in Smear Zones: A Case Study, 508
- Lee, Der-Hong**
see Xie, Chi, 1319
- Lee, Do Hyung**
Seismic Analysis of RC Bridge Columns with Flexure-Shear Interaction, 1135
- Lee, Homa**
see Imran, Jasim, 758
- Lee, Hung-Jen**
see Hwang, Shyh-Jiann, 1074
- Lee, Jae-Soo**
see Yoo, Chulsang, 823
see Yoo, Chulsang, 824
- Lee, James D.**
see Shen, Siyuan J., 355

- Lee, Jin-Yong**
see Lee, Cheol-Hyo, 508
- Lee, Jung Eun**
see Han, Il Yeong, 821
- Lee, Jung-Yoon**
see Mansour, Mohamad, 1232
- Lee, K. M.**
 Effects of Placement Method on Geotechnical Behavior of Hydraulic Fill Sands, 11
- Lee, Kang-Kun**
 Numerical Evaluation of Landfill Stabilization by Leachate Circulation, 498
 Simple Analysis of Framed-Tube Structures with Multiple Internal Tubes, 1125
see Lee, Cheol-Hyo, 508
- Lee, Kwang K.**
see Lin, Yen H., 444
- Lee, Peter L.**
 High-Tech Isolation, 1514
- Lee, Shang-Hsiu**
see Bai, Hsunling, 520
- Lee, Tai-Kuang**
 Analysis of Composite Beam-Columns under Lateral Cyclic Loading, 1093
- Lee, Younggyu**
see Kim, Hyoseob, 1416
- Lee, Young-ki**
 Axial Strength Determination for Gypsum-Sheathed, Cold-Formed Steel Wall Stud Composite Panels, 1142
- Lee, Young-Ki**
 Limiting Heights for Gypsum-Sheathed, Cold-Formed Steel Wall Studs, 1471
- Lee, Yusin**
 Optimizing Highway Grades to Minimize Cost and Maintain Traffic Speed, 1293
- Laggiero, S.**
see Sharp, R. R., 479
- Lehane, B. M.**
 Base Resistance of Jacked Pipe Piles in Sand, 613
- Lehmann, D.**
see Uijtewaald, W. S. J., 755
- Lehmkuhl, Mike**
see Burt, Charles M., 867
- Lei, G. H.**
 Stress and Displacement around Elastic Artificial Rectangular Hole, 379
- Lejano, Raul P.**
 Environmental Justice: Spatial Distribution of Hazardous Waste Treatment Storage and Disposal Facilities in Los Angeles, 1327
- Lema, J. M.**
see Puñal, A., 478
- LeMarchand, Eric**
see Dormieux, Luc, 425
- Leon, Roberto T.**
see Swanson, James A., 1130
- Leoni, Graziano**
see Dezi, Luigino, 286
- Leppard, C.**
see Abyaneh, M. Y., 997
- Lesaffre, B.**
see Hartani, T., 855
- Leshchinsky, Dov**
see Baker, Rafael, 583
- Leu, Sou-Sen**
 Optimal Repetitive Scheduling Model with Shareable Resource Constraint, 243
- Leung, Christopher K. Y.**
 Delamination Failure in Concrete Beams Retrofitted with a Bonded Plate, 981
 Modeling of Concrete Cracking Induced by Steel Expansion, 990
- Leung, D. H. K.**
see Lee, K. M., 11
- Leung, Dennis Y. C.**
see Xia, Jiyang, 475
- Leung, Derrek Ho-Wai**
see Chen, Guang-Hao, 466
- Leutheusser, Hans J.**
 Backward Flow Velocities of Submerged Hydraulic Jumps, 715
- Lever, James H.**
 Design of Cazenovia Creek Ice Control Structure, 134
- Levinson, David M.**
 Financing Infrastructure over Time, 1333
- Levinson, Herbert S.**
 Capacity of Shared Left Turn Lanes—A Comparative Analysis, 1270
- Lewis, Brian J., P.E.**
see Hessen, Corey N., P.E., 913
- Leyte, F.**
see Ahmad, S., 295
- Li, Alex**
 Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets, 1115
- Li, Bin**
 Three-Dimensional Model of Navier-Stokes Equations for Water Waves, 1382
- Li, C.**
 3D Analytic Model for Testing Numerical Tidal Models, 734
- Li, C. W.**
 3D Numerical Simulation of Deposition Patterns due to Sand Disposal in Flowing Water, 687
- Li, D. Z.**
see Chua, D. K. H., 214
- Li, Fangjun**
 Prediction of Lee-Wake Scouring of Pipelines in Currents, 1391

AUTHOR INDEX

Lin

- Li, Franky
see Li, Loretta Y., 481
- Li, G. M.
see David, K. H. Chua, 209
- Li, H.
see Chang, C. Y., 543
- Li, Hanbin
Chlorine Dioxide Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 503
Effect of Temperature on Ozone Inactivation of *Cryptosporidium Parvum* in Oxidant Demand-Free Phosphate Buffer, 486
- Li, Heng
see Cheng, Eddie W. L., 966
- Li, Hongsheng
Experimental Investigation on Compressive Strength of Frozen Soil versus Strain Rate, 135
- Li, Jing
see Pan, Tso-Chien, 1037
- Li, Jingyu
see Xu, Zongxue, 197
- Li, Jonathan H. M.
see Ng, Charles W. W., 615
see Ng, Charles W. W., 631
- Li, Loretta Y.
Heavy Metal Sorption and Hydraulic Conductivity Studies Using Three Types of Bentonite Admixes, 481
- Li, Michael
see Peña-Mora, Feniosky, 211
- Li, Ping
Competitive Adsorption of Phenolic Compounds onto Activated Carbon Fibers in Fixed Bed, 519
- Li, Q.S.
see Luo, Q. Z., 1213
- Li, Victor C.
see Redon, Carl, 1019
see Zhang, Jun, 282
see Zhang, Jun, 1026
see Zhang, Jun, 1312
- Li, Ying
Solitary Wave Runup on Plane Slopes, 1384
- Li, Y.S.
Boussinesq-Type Model with Boundary-Fitted Coordinate System, 1396
- Li, Zongjin
Static and Dynamic Behavior of Extruded Sheets with Short Fibers, 1001
- Liang, Chih-Hsin
see Liang, Ming-Te, 851
- Liang, J.
see Kulatilake, P. H. S. W., 422
- Liang, Ming-Te
Multiple Layer Fuzzy Evaluation for Existing Reinforced Concrete Bridges, 851
- Liang, Neng
see Hwang, Jin-Hung, 656
- Liang, Yu
see Wu, Chao-Hsiung, 439
- Liao, Sam S. C.
see Youd, T. L., 644
- Liapi, Katherine
Transformable Structures Design Features and Preliminary Investigation, 39
- Liaw, C. Y.
Second-Order Superharmonic Wave Loading on Jack-Up Platforms, 1417
- Liberatore, Matthew J.
Project Management in Construction: Software Use and Research Directions, 222
- Libra, J.
see Yoo, E. S., 535
- Licht, Louis, P.E.
Landfill Capping with a Woodland Ecosystem, 1459
- Liddell, Ian
Turning with the Wind, 1525
- Lie, Seng-Tjhen
see Chiew, Sing-Ping, 1204
- Liebe, Tina
Localization Properties of Generalized Drucker-Prager Elastoplasticity, 348
- Liew, J. Y. Richard
Inelastic Analysis of Steel Frames with Composite Beams, 1094
- Liggett, James A.
Civil-Engineering Education: Alternative Paths, 769
- Liljegen, James A.
see Santi, Paul M., 1524
- Lim, G. T.
see Wang, C. M., 428
- Lim, Teik-Thye
Influence of Metal Loading on the Mode of Metal Retention in a Natural Clay, 496
- Limam, A.
see Khamlich, A., 321
- Limkatanyu, Suchart
see Aprile, Alessandra, 1236
- Lin, Chia-Hsin
Energy-Effectiveness of Nonthermal Plasma Reactors for Toluene Vapor Destruction, 509
see Bai, Hsunling, 520
- Lin, Deng-Fong
Use of Sewage Sludge Ash as Brick Material, 545
- Lin, F. B.
Modeling Traffic Delays at Northern New York Border Crossings, 1323
- Lin, Huang-Hsiung
General Approach to Payment Adjustments for Flexible Pavements, 1258

Lin, Jeng-Hsiang

Analytical Study of Probable Peak Vehicle Load on Rigid Pavement, 1314

Lin, M. W.

see Lin, F. B., 1323

Lin, Min-Ray

see Lu, Chungsyng, 548

Lin, S. F.

see You, S. J., 534

Lin, Wen-Hsiung

Accidental Torsion in Buildings: Analysis V's Earthquake Motions, 1127

Lin, Y. S.

see Jeng, D. S., 1305

Lin, Yen H.

Verification of Anaerobic Biofilm Model for Phenol Degradation with Sulfate Reduction, 444

Ling, Chen

see Soh, A. K., 369

Ling, Hoe I.

Bounding Surface Model for Geosynthetic Reinforcements, 390

Interactions between PVC Geomembranes and Compacted Clays, 657

Performance of Geosynthetic-Reinforced Asphalt Pavements, 587

Ling, Yean-Yng

Relevance of the Network Factor in the Selection of Consultants, 1068

Lingras, Pawan

Statistical and Genetic Algorithms Classification of Highways, 1283

see Sharma, Satish, 1308

Liong, Shie-Yui

Derivation of Pareto Front with Genetic Algorithm and Neural Network, 777

Lipsett, Mike

see Blouin, Stéphane, 29

Lipton, Robert

Reinforcement of Elastic Structures in the Presence of Imperfect Interfacial Bonding, 354

Litrico, Xavier

Nonlinear Diffusive Wave Modeling and Identification of Open Channels, 698

Robust Flow Control of Single Input Multiple Outputs Regulated Rivers, 894

Liu, Andrew H.

Equivalent Number of Uniform Stress Cycles for Soil Liquefaction Analysis, 663

Liu, Bin

see Cheng, Jiayang, 516

Liu, Cheng-Chi

see Twu, Sheng-Wen, 1390

Liu, Chia-Sheng

see Lu, Jau-Yau, 751

Liu, Chiu, P.E.

Heat Conduction Waves in Bilayer Cement Concrete Structures, 417

Liu, Chunhua

Statewide Vessel Collision Design for Bridges, 80

Liu, Dajin

Torsional Stiffness of Multicell Hollow Sections, 1469

Liu, Dingfang

Surface Characteristics of Sorptive-Filtration Storm Water Media. I: Low Density ($p < 1.0$) Oxide Coated Buoyant Media, 538

Surface Characteristics of Sorptive-Filtration Storm-Water Media. II: Higher Specific Gravity ($p > 1.0$) Oxide-Coated Fixed Media, 539

Liu, H.

see York, K., 1304

Liu, Haowu

see Shen, Jie, 1331

Liu, Huabei

see Ling, Hoe I., 390

Liu, Wen-Cheng

Investigation of Long-Term Transport in Tanshui River Estuary, Taiwan, 1386

Liu, Xianbing

Green's Function for an Infinite Elastic Plate on Winkler's Foundation, 313

Liu, Yong

A One-Way Spatial Multiscale Method for Optimal Bioremediation Design, 1349

Liu, Zheng

see Ling, Hoe I., 587

Liu, Zhen-Shu

see Chen, Jyh-Cherng, PhD, 438

Lo, H. P.

see Lam, William H. K., 1328

Lo, Irene M. C.

Use of Organoclay as Secondary Containment for Gasoline Storage Tanks, 448

Lo, Irene M.-C.

Organoclay with Soil-Bentonite Admixture as Waste Containment Barriers, 523

Lo, Siu Ming

Use of a Modified Network Model for Analyzing Evacuation Patterns in High-Rise Buildings, 40

Locat, Jacques

see Imran, Jasim, 758

Locke, Mark

Time-Dependent Particle Transport through Granular Filters, 618

Lockwood, James D., P.E.

Global Engineering and Construction Change, 921

Loehr, Raymond C.

Predictions of Bioremediability and Actual Results: Soils with Petroleum Hydrocarbons, 1449

VOC and SVOC Emissions from Slurry and Solid Phase Bioremediation Processes, 1463

AUTHOR INDEX

Luque-Escamilla

- Logan, Bruce E.**
Analysis of Overall Perchlorate Removal Rates in Packed-Bed Bioreactors, 487
- Loge, Frank J.**
Variations in Wastewater Quality Parameters Influencing UV Disinfection Performance: Relative Impact of Filtration, 533
- Long, Michael**
Database for Retaining Wall and Ground Movements due to Deep Excavations, 589
- Loo, Yew-Chaye**
see Lee, Kang-Kun, 1125
- Loof, R.**
see Sahoo, G. B., 897
- Loosemore, Martin**
Crisis Management in Construction Projects, 1576
- Lopes, Vicente L.**
Impacts of Vegetative Practices on Suspended Sediment from Watersheds of Arizona, 1340
see Freedman, Vicky L., 868
- López, Fabian**
Mean Flow and Turbulence Structure of Open-Channel Flow through Non-Emergent Vegetation, 704
Risk of Sediment Erosion and Suspension in Turbulent Flows, 689
- Lopez-Anido, Roberto A., ed.**
Emerging Materials for Civil Infrastructure: State of the Art, 1578
- López-Hombrados, C.**
see Andrade, C., 1009
- Lordgooei, M.**
New General Pore Size Distribution Model by Classical Thermodynamics, Application: Activated Carbon, 464
- Lorenc, Steven J.**
see Bernold, Leonhard E., 240
- Losada, Iñigo J.**
see Méndez, Fernando J., 1381
- Losada, Miguel A.**
see Méndez, Fernando J., 1381
- Loset, Sveinung**
see Frankenstein, Susan, 133
- Lou, Z.**
Application of a Neural Network Model to Forecast Short-Term Pavement Crack Condition: Florida Case Study, 853
- Locks, Daniel P.**
see Goodwin, R. Andrew, 1377
- Love, Nancy G.**
see Ma, Guihua, 492
- Lovell, David J.**
Improvements to Sight Distance Algorithm, 1289
- Low, Angus**
see Dallard, Pat, 104
- Lowe, David J.**
Human Effects in Construction Contract Price Forecasting: Experience and Experiential Learning Styles, 269
- Lu, Chungsyng**
Removal of EATX from Waste Gases by a Trickle-Bed Air Biofilter, 548
- Lu, J. J.**
see Lou, Z., 853
- Lu, Jau-Yau**
Turbulence Intensities of Shallow Rain-Impacted Flow over Rough Bed, 751
- Lu, Le-Wu**
see Mao, Changshi, 1190
- Lu, Ming**
Sensitivity Analysis of Neural Networks in Spool Fabrication Productivity Studies, 208
- Lu, Ning**
Determining Fault Permeability from Subsurface Barometric Pressure, 643
see Anderson, Matthew T., 359
- Lu, Tai-Fang**
see Lu, Jau-Yau, 751
- Lu, Yong**
see Ma, Guowei, 328
- Lu, Z. T.**
see Zhang, J. W., 1117
- Lua, Aik Chong**
Adsorption of Sulfur Dioxide on Activated Carbon from Oil-Palm Waste, 541
- Lucic, Ivana**
see Rakha, Hesham, 1307
- Lueke, Jason S.**
Rehabilitation of Underground Infrastructure Utilizing Trenchless Pipe Replacement, 4
- Lugo, Adolph**
see Ponce, Victor M., 787
- Luk, G. K.**
Pipeline Rehabilitation with Fiber-Reinforced Mortar Lining, 848
- Lukić, Mladen**
Probabilistic Assessment of Welded Joints versus Fatigue and Fracture, 1096
- Luna, Ronaldo**
see Cruz, Ana Maria, 1440
- Lundgren, K.**
Three-Dimensional Modeling of Anchorage Zones in Reinforced Concrete, 357
- Luo, Ancheng**
see Ndegwa, Pius M., 567
- Luo, Q. Z.**
Negative Shear Lag Effect in Box Girders with Varying Depth, 1213
- Luque-Escamilla, Pedro L.**
see Vallesquino, Pedro, 890

- Lutes, Loren D.**
see Michaelov, George, 319
- Lycett, C.**
see Murphy, M., 1008
- Lynch, Jason**
see Duan, Lian, 1
- Lyon, John G.**
see Witter, Jonathan D., 1246
- Ma, F. X.**
see Li, C. W., 687
- Ma, Guihua**
 BTX Biodegradation in Activated Sludge under Multiple Redox Conditions, 492
- Ma, Guowei**
 Homogenization of Masonry Using Numerical Simulations, 328
- Maalej, M.**
see Bonacci, J. F., 154
- Macari, Emir José**
see Arduino, Pedro, 296
see Arduino, Pedro, 297
- Mackenna, Peter E.**
see Esrig, Melvin I., P.E., 1472
- Mackie, Kevin**
 Probabilistic Seismic Demand Model for California Highway Bridges, 109
- MacMahan, Jamie**
 Hydrographic Surveying from Personal Watercraft, 1243
- MacRae, Gregory A.**
 Near-Fault Ground Motion Effects on Simple Structures, 1185
 Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns, 1129
 Seismic Behavior of Hollow Stiffened Steel Bridge Columns, 68
- Madanat, Samer**
see Archilla, Adrián Ricardo, 1303
see Mauch, Michael, 841
- Maes, Marc A.**
see Huyse, Luc, 281
- Magee, Bryan J.**
see Eighmy, T. Taylor, 1545
- Magee, Timothy**
see Eschenbach, Elizabeth A., 1347
- Magluta, Carlos**
see Faisca, Renata G., 389
- Magnusson, J.**
see Lundgren, K., 357
- Mahadevan, S.**
 Reliability Analysis of Rotorcraft Composite Structures, 33
- Mahadevan, Sankaran**
 Multiple Linearization Method for Nonlinear Reliability Analysis, 414
see Zhang, Ruoxue, 1181
- Mahar, Pooran S.**
 Selection of Sprinkler Lateral for Shorter Life Cycle, 893
- Mahar, Pooran Singh**
 Optimal Identification of Ground-Water Pollution Sources and Parameter Estimation, 1338
- Mahdavi, A.**
see Ries, R., 179
- Mahdjoubi, Lamine**
see Heesom, David, 188
- Mahendraker, Venkatram**
see Mavinic, Donald S., P.E., 468
- Mahmoud, K.**
see He, W. L., 101
- Mahmoud, Khaled**
see Mylonakis, George, 122
- Maidment, David R.**
see Garbrecht, Jurgen, 831
- Maile, Karen**
see Roberts, Philip J. W., 685
- Mailvaganam, Noel P.**
 Curling of Concrete Floor Slabs on Grade—Causes and Repair, 1031
- Main, J. A.**
 Evaluation of Viscous Dampers for Stay-Cable Vibration Mitigation, 102
- Mainguy, Marc**
 Role of Air Pressure in Drying of Weakly Permeable Materials, 344
- Maji, Arup**
 Design of Composite Surrogate Mirror Support Structure, 30
 Fracture Analysis of FRP Reinforced Concrete Beams, 349
- Makel, Darby**
see Duke, Michael B., 26
- Makris, Nicos**
 Rocking Response of Anchored Blocks under Pulse-Type Motions, 334
see Zhang, Jian, 333
- Maksimovic, Cedo, ed.**
see Brashear, Robert W., ed., 1618
- Malak, Michael C.**
see Vaughan, Ronald L., Jr., 1451
- Malandraki, V.**
 Triaxial Tests on Weakly Bonded Soil with Changes in Stress Path, 596
- Malek, Amir M., P.E.**
 Computer-Aided Graphical Analysis of Bridges under Vehicular Loading, 79
- Malits, Frank S., P.E.**
 Delicate Procedure, 1507
- Malkawi, Abdallah I. Husein**
 Global Search Method for Locating General Slip Surface using Monte Carlo Techniques, 634

AUTHOR INDEX

Masten

- Malkawi, Abdallah I. Husein, PhD
see Alawneh, Ahmed Shlash, PhD, 1033
- Malley, James O.
see Bjorhovde, Reidar, 1613
- Maloof, Salim
New Parameters for Solution of Two-Well Dispersion Problem, 793
- Mandal, S.
see Ojha, C. S. P., 733
- Mander, J. B.
see Dutta, A., 1229
- Manfred, G.
see Pecce, M., 1005
- Manfredi, Gaetano
see Cosenza, Edoardo, 1573
- Mang, Herbert A.
see Lackner, Roman, 418
see Lackner, Roman, 419
- Manivong, Kitsana K.
see Jaafari, Ali, 218
- Mankins, John C.
Space Solar Power: A Major New Energy Option?, 20
Space Solar Power: An Assessment of Challenges and Progress, 21
- Mans, Patrick
Full-Scale Testing of Composite Plate Girders Constructed Using 485-MPa High-Performance Steel, 123
- Mansfeld, F.
see Jahani, F., 500
see Jahani, F., 501
- Mansour, Mohamad
Cyclic Stress-Strain Curves of Concrete and Steel Bars in Membrane Elements, 1232
- Mansur, M. A.
Punching Shear Strength of Simply Supported Ferroce-ment Slabs, 1022
- Mao, Changshi
Effect of Local Details on Ductility of Welded Moment Connections, 1190
- Maragakis, E.
see Saiidi, M., 92
- Maragakis, Emmanuel "Manos"
Full-Scale Field Failure Tests of Railway Bridge, 98
- Marcic, David M., P.E.
see Stamm, Roan, P.E., 1539
- Marcuson, William F., III
see Youd, T. L., 644
- Maretic, R. B.
Buckling of Column with Base Attached to Elastic Half-Space, 304
- Marí, Antonio R.
see Cobo del Arco, Diego, 83
- Marsh, Adrian
see Burken, Joel G., 1458
- Martin, A. J.
Runup on Columns in Steep, Deep Water Regular Waves, 1383
- Martin, Geoffrey R.
see Youd, T. L., 644
- Martin, James R., II
see Polito, Carmine P., 607
- Martin, Rachel
Another Look at Hartford Civic Center Coliseum Col-lapse, 1034
- Martínez, Antonio de Lucas
Short-Term Effects of Wastewater Biodegradability on Biological Phosphorus Removal, 461
- Martinez, J.
see Masson, S., 396
- Martinez, Julio C.
see Kamat, Vineet R., 210
- Martino, Louis
see Williams, Gustavious Paul, 1448
- Martinola, Giovanni
Numerical Model for Minimizing the Risk of Damage in a Repair System, 983
- Maru, Savita
Consistent Procedure for Creep and Shrinkage Effects in RC Frames, 1155
- Masad, E.
see Romero, P., 977
- Masad, Eyad
Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes, 1315
- Masciola, David A.
Effects of Operating Parameters in Tubular Ultrafiltration, 465
see Vaughan, Ronald L., Jr., 1451
- Mase, Hajime
Wave Runup of Random Waves on a Small Circular Pier on Sloping Seabed, 1401
- Maslia, Morris L.
see Aral, Mustafa M., 799
- Mason, Brad C. A.
see Walsh, Kenneth D., 1047
- Masood, Muhammad
see Tariq, Ata-ur-Rehman, 898
- Masoud, Sobhy
CFRP-Strengthened and Corroded RC Beams under Monotonic and Fatigue Loads, 168
- Massarelli, Peter J.
see Dohmeier, Jeffrey M., 1039
- Massicotte, Serge
see Fortin, Jean-Pierre, 784
see Fortin, Jean-Pierre, 785
- Masson, S.
Micromechanical Analysis of the Shear Behavior of a Granular Material, 396
- Masten, Susan J.
see Hsu, I-yuang, 497

- see* Wu, Jerry J., 565
- Matson, Darryl D., P.E.**
Piece by Piece, 1509
- Matsushima, H.**
Fracture and Fatigue Strength of Slabs Repaired with D-RAP Method, 984
- Mattei, Norma Jean, P.E.**
Mentoring, 933
- Matthews, H. Scott**
External Costs of Air Emissions from Transportation, 836
- Mauch, Michael**
Semiparametric Hazard Rate Models of Reinforced Concrete Bridge Deck Deterioration, 841
- Mavinic, Donald S., P.E.**
Effect of Microaerophilic Conditions on Autothermal Thermophilic Aerobic Digestion Process, 468
- Mawer, Nicola**
see Weber, Larry J., 700
- Mayne, Paul W.**
see Finke, Kimberly A., 575
- Mayor, Lourdes Rodríguez**
see Martínez, Antonio de Lucas, 461
- Mayrbaur, R. M., P.E.**
Cracking and Fracture of Suspension Bridge Wire, 127
- Mazeika, Aaron, P.E.**
see Lee, Peter L., 1514
- Mazur, George D., P.E.**
see Dixon, Karen K., P.E., 204
- Mazurek, K. A.**
Scour of Cohesive Soil by Submerged Circular Turbulent Impinging Jets, 722
- Mazzolani, F. M.**
see De Matteis, G., 1103
- MBouche, J. H.**
see Kalogo, Y., 452
- McAllister, Therese P.**
Reliability-Based Condition Assessment of Welded Miter Gate Structures, 846
- McAnally, William H., Jr.**
see Parchure, Trimbak M., 720
- McAvoy, Thomas J.**
see Kim, Hyunook, 441
see Kim, Hyunook, 442
- McCaffer, R.**
see Kululanga, G. K., 247
- McCallen, David**
see Helwany, Sam M. B., 636
see Helwany, Sam M. B., 637
- McCann, D. M.**
see Colla, C., 87
- McCarter, W. J.**
Surface Zone Concrete: Drying, Absorption, and Moisture Distribution, 973
- McCuen, Richard H.**
Assessment of Asphalt Specimen Homogeneity, 1301
Generalized Flood Skew: Map versus Watershed Skew, 807
- McDonald, David R., Jr.**
A Contribution to the Development of Guidelines for Toll Plaza Design, 1280
- McDonald, Jamie**
see Heymsfield, Ernest, 58
- McEwan, Ian**
Discrete Particle Modeling of Entrainment from Flat Uniformly Sized Sediment Beds, 721
see Nikora, Vladimir, 680
- McGinley, Mark W.**
see Hamoush, Sameer A., 158
- McGlow, K. Joanne**
Evacuation of Health Care Facilities: A New Twist to a Classic Model, 1430
- McKeel, Wallace T., Jr.**
see Dobmeier, Jeffrey M., 1039
- McKinney, Daene C.**
see Cai, Ximing, 1374
- McLean, D. I.**
see Peterson, S. T., 1121
see Peterson, S. T., 1122
- McLean, S. R.**
Sand Transport in Oscillatory Sheet Flow with Mean Current, 1395
- McMahon, David J.**
see Stewart, Jonathan P., 653
- McMahon, Thomas A.**
see Piechota, Thomas C., 773
- McMillen, Sara J.**
see Locher, Raymond C., 1449
- McPherson, E. Gregory**
see Randrup, Thomas B., 838
- Mead, Stephen**
see Thorpe, Tony, 259
- Medina, Josep R.**
Estimation of Incident and Reflected Waves Using Simulated Annealing, 1403
- Meeroff, D. E.**
Precoat Filtration and Ultrafiltration of Emulsified Bitumen from Water, 436
- Meguro, Kimiro**
Applied Element Simulation of RC Structures under Cyclic Loading, 1220
- Mehanny, Sameh S. F.**
Seismic Damage and Collapse Assessment of Composite Moment Frames, 1191
- Mehmood, A.**
see Saccomanno, F. F., 1320
- Mehta, Sanjay**
Stress Spikes in Pin and Hanger System of a Truss Bridge, 67

AUTHOR INDEX

Mitchell

- Meijer, Sebastiaan C. F.
see Hao, Xiaodi, 443
- Mekonen, Alemayehu
Use of Sequencing Batch Reactor for Biological Denitrification of High Nitrate-Containing Water, 463
- Melchers, Robert E.
Assessment of Existing Structures—Approaches and Research Needs, 1119
- Melching, Charles S.
Uncertainty in Coupled Nonpoint Source and Stream Water-Quality Models, 1379
- Melloni, P.
see Puñal, A., 478
- Melville, Bruce W.
see Coleman, Stephen E., 716
see Lauchlan, Christine S., 706
- Memon, M. Asghar
see Renault, D., 902
- Méndez, Fernando J.
Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters, 1381
- Mends, Nigel, P.E.
Fast Forward, 1517
- Menendez, Al
see Jones, Stacey G., P.E., 1558
- Meng, Qingyuan
Boundary Element Simulation of Size Effect for Quasi-Brittle Materials by Using One-Size Specimens, 324
- Mercier, Guy
Prediction of Metal Removal Efficiency from Contaminated Soils by Physical Methods, 473
- Mertz, Dennis R.
see Miller, Trent C., 114
- Merz, Thomas E.
Overinvestment When Allocating Costs of Wastewater Treatment Plant, 1371
- Mettemeyer, Matthew
see Nanni, Antonio, 1470
- Micaletti, Raymond C.
see Deodatis, George, 427
- Michaelov, George
Extreme Value of Response to Nonstationary Excitation, 319
see Sarkani, Shahram, 1108
- Michalowski, Radoslaw L.
Rule of Equivalent States in Limit-State Analysis of Soils, 578
- Millard, S. G.
Coaxial Transmission Lines: Development of Test Procedures for Concrete, 994
- Miller, John B.
see Wooldridge, Stephen C., P.E., 951
- Miller, John S.
see Smith, Brian L., 952
- Miller, Julianne J.
see French, Richard H., 742
- Miller, K. F.
see Urban, A. L., 747
- Miller, Maurice D.
Durability of Segmental Concrete Bridges, 115
- Miller, Thomas H.
see Lee, Young-ki, 1142
see Lee, Young-Ki, 1471
- Miller, Trent C.
Strengthening of a Steel Bridge Girder Using CFRP Plates, 114
- Millward, S.
see Cooke, A. J., 647
- Minagawa, M.
Prototype Diagnosis Expert System with Knowledge Refinement Function, 185
- Mines, Richard O., Jr.
Conventional and AWT Mixed-Liquor Settling Characteristics, 460
- Minner, Marie
see Bhaduri, Budhendra, 1337
- Minoru, Kunieda
Evaluation of Bond Properties in Concrete Repair Materials, 980
- Minsker, Barbara S.
see Liu, Yong, 1349
- Minutolo, V.
see Gesualdo, A., 665
- Miranda, Eduardo
Estimation of Inelastic Deformation Demands of SDOF Systems, 1186
- Mirmiran, Amir
Damage Assessment of FRP-Encased Concrete Using Ultrasonic Pulse Velocity, 293
Slenderness Limit for Hybrid FRP-Concrete Columns, 146
- Mishra, A.
Hydraulic Modeling of Kangsabati Main Canal for Performance Assessment, 858
- Mishra, Jovina C.
see Swamee, Prabhata K., 895
- Mishra, P. K.
Bentonite as an Ameliorant in an Alfisol—A Laboratory Study, 872
- Mishra, S. K.
see Singh, R. D., 809
- Mita, Akira
see Pan, Tso-Chien, 1037
- Mitchell, D.
see Griezic, A., 96
- Mitchell, Heath
see Higgins, Christopher, 56
- Mitchell, J. K.
see Lee, K. M., 11

Mitchell, James K.

see Youd, T. L., 644

Mitchell, James Kenneth

Collected Papers on Geotechnics by Professor James K. Mitchell: Civil Engineering Classics, 1571

Mitropoulos, Panagiotis

A Model for Understanding, Preventing, and Resolving Project Disputes, 237

Mittelberger, Ralph A.

Patents: What Every Engineer Should Know, 1519

Miura, Kinya

see Ueno, Katsutoshi, 595

Miura, Norihiko

see Chai, Jin-Chun, 659

Miyamoto, Y.

see Fang, D. P., 1226

see Fang, D. P., 1227

Miyata, M.

see Mustoe, G. G. W., 397

Mizumura, K.

Geochemical Determinations of Geological Layers and Groundwater Flow Directions, 800

Mizumura, Kazumasa

Determination of Component of Ground-Water Flow from Rainfall Data, 801

Mizuno, Y.

see Kitagawa, T., 411

Mrakar, Paul

see Hamoush, Sameer A., 158

Mochtar, Krishna

Role of Marketing Intelligence in Making Pricing Policy in Construction, 956

Modena, Claudio

see Valluzzi, Maria Rosa, 161

Moen, L. A.

see De Matteis, G., 1103

Moglen, Glenn E.

Resolution Effects on Hydrologic Modeling Parameters and Peak Discharge, 829

Mohamed, Osama A.

Time Effect of Alkali-Aggregate Reaction on Performance of Concrete, 986

Mohammadi, Jamshid

see Floren, Amy, 59

Mohammed, Tarek Uddin

Effect of Crack Width and Bar Types on Corrosion of Steel in Concrete, 993

Mohareb, Magdi

Testing and Analysis of Steel Pipe Segments, 1306

Mohle, Henry

see Murthy, A. S. Narasimha, 1616

Mohri, Yoshiyuki

see Ling, Hoe I., 390

see Ling, Hoe I., 657

Moin, Syed M. A.

see Valeo, Caterina, 811

Mokha, Anoop

see Lee, Peter L., 1514

Mokos, V. G.

see Sapountzakis, E. J., 387

Mokwa, Robert L.

Experimental Evaluation of Lateral-Load Resistance of Pile Caps, 588

see Duncan, J. Michael, 592

Moldrup, Per

see Poulsen, Tjalfe G., 447

Molenaar, Keith

Structural Equation Model of Construction Contract Dispute Potential, 12

Molenaar, Keith R.

Design-Builder Selection for Small Highway Projects, 964

Web-Based Decision Support Systems: Case Study in Project Delivery, 202

Moletta, René

see Bernet, Nicolas, 462

Molinas, Albert

see Wu, Baosheng, 728

Monteiro, P. J. M.

see Bittencourt, R. M., 971

see Celestino, T., 1020

see Kurtis, K. E., 996

Monti, Giorgio

Design of FRP Jackets for Upgrade of Circular Bridge Piers, 153

Moramarcio, Tommaso

Simple Method for Relating Local Stage and Remote Discharge, 781

Morbidelli, R.

see Govindaraju, Rao S., 791

Moreno, Natália

Potential Environmental Applications of Pure Zeolitic Material Synthesized from Fly Ash, 555

Moreton, Alan

Performance of Segmental and Posttensioned Bridges in Europe, 118

Morgan, James R.

see Parlos, Alexander G., 1219

Morgan, Susan M., P.E.

Study of Noise Barrier Life-Cycle Costing, 1282

Use of Landfill Gas for Electricity Generation, 1442

see Kay, Dianne H., P.E., 1041

Morgan-Sagastume, Fernando

Effects of Biomass Growth on Gas Pressure Drop in Biofilters, 477

Moriwaki, Yoshi

see Liu, Andrew H., 663

Moriwaki, Yoshiharu

see Youd, T. L., 644

AUTHOR INDEX

Nagahashi

- Morris, Carl "Ric", P.E.
see Kulchawik, Robert J., P.E., 1550
- Morris, M. P.
see Doering, J. C., 131
- Morrow, Daniel V.
see MacRae, Gregory A., 1185
- Morse, Brian
Theoretical Development of Forces on Cylindrical Ice Booms, 137
- Morton, Robert A.
Factors Controlling Navigation-Channel Shoaling in Laguna Madre, Texas, 1387
- Moschandreass, D. J.
Exposure to Pesticides by Medium and Route: The 90th Percentile and Related Uncertainties, 537
- Moselhi, Osama
see El-Rayes, Khaled, 212
see El-Rayes, Khaled, 225
- Moser, David A., ed.
see Haimes, Yacov Y., ed., 1603
- Mossaad, Mostafa E.
see El-Kelesh, Adel M., 658
- Motes, William
see Sato, Chikashi, 506
- Motz, Louis H.
see Watson, Brian J., 797
- Moua, Bliia
Comparison of Two Maintainability Programs, 239
Evolution for Formal Maintainability Program for Large Manufacturing Company, 1036
- Moulds, Bruce A.
Design Considerations for Aircraft Bridges, 112
- Mousa, Ragab M.
An Integrated Model for Optimizing Orientation of Two-Runway Configurations, 1298
- Moussa, Roger
Fractional-Step Method Solution of Diffusive Wave Equation, 772
see Fortin, Jean-Pierre, 784
see Fortin, Jean-Pierre, 785
- Mpesha, Witness
Leak Detection in Pipes by Frequency Response Method, 681
- Mtenga, Primus
see Tawfiq, Kamal, 78
- Mu, Bin
see Li, Zongjin, 1001
- Mueller, Cynthia K.
see Yates, David, 804
- Mufti, A. A., P.E.
see Thorburn, J., P.E., 84
- Müftüoğlu, R. Ferruh
2D Unit Sediment Graph Theory, 789
- Muhammad, Ikhsan
see Halling, Marvin W., P.E., 1090
- Muhanna, Rafi L.
Uncertainty in Mechanics Problems—Interval-Based Approach, 341
- Mukai, David J.
see Avent, R. Richard, 969
see Avent, R. Richard, 1199
see Avent, R. Richard, P.E., 66
- Mukhopadhyaya, Phalguni
Interface Shear Stress: A New Design Criterion for Plate Debonding, 147
see Zhang, Burong, 152
- Mullen, Robert L.
see Muhanna, Rafi L., 341
- Mullins, G.
see Thilakasiri, H. S., 573
- Munier, N.
see Blais, J. F., 1446
- Murphy, M.
Recycled Polymers for Use as Bitumen Modifiers, 1008
- Murphy, Peter J.
Estimating Equation for Mixed Populations of Floods in Massachusetts, 779
Evaluation of Mixed-Population Flood-Frequency Analysis, 778
- Murphy, R. Jerry
see Mines, Richard O., Jr., 460
- Murray, D. W.
see Mohareb, Magdi, 1306
- Murray, Kenneth
see Hamoush, Sameer A., 158
- Murray, Kevin B.
see Addison, Paul S., 285
- Murthy, A. S. Narasimha
Transportation Engineering Basics, 1616
- Muslu, Yilmaz
Numerical Analysis for Lateral Weir Flow, 889
- Muste, M.
see Ettema, R., 130
- Mustoe, G. G. W.
Material Flow Analyses of Noncircular-Shaped Granular Media using Discrete Element Methods, 397
- Mutziger, Mark J.
see Dexter, Robert J., 117
- Mylonakis, George
Simplified Modeling of Bridge Response on Soft Soil to Nonuniform Seismic Excitation, 122
see Nikolaou, Sissy, 120
- Myoga, Haruki
see Yang, Min, 542
- Nadjai, Ali
see Ali, Faris A., 1476
- Nagahashi, Shunji
see Mase, Hajime, 1401

- Nagarajaiah, Satish**
Base-Isolated FCC Building: Impact Response in Northridge Earthquake, 1193
- Nagata, J.**
see Sakumoto, Y., 1004
- Nagpal, A. K.**
see Maru, Savita, 1155
- Naidu, V. S.**
Numerical Modeling of Tide-Induced Currents in Thane Creek, West Coast of India, 1407
- Naik, T.**
see Liaw, C. Y., 1417
- Naik, Tarun R.**
Performance and Leaching Assessment of Flowable Slurry, 474
Strength and Durability of Roller-Compacted HVFA Concrete Pavements, 1477
see Lopez-Anido, Roberto A., ed., 1578
- Nakamura, Tsuneyoshi**
Inverse Design of Frames for Specified Second-Order Bending Strains, 1139
- Nakato, Tatsuaki**
see Ansar, Matahel, 745
- Nam, Ki-Chan**
Evaluation of Handling Systems for Container Terminals, 1398
- Nambisan, Shashi S.**
see Pulugurtha, Srinivas S., 1309
see Pulugurtha, Srinivas S., 1310
- Nandagiri, Showri, P.E.**
Coming to the Surface, 1549
- Nanni, Antonio**
Diagnostic Load Testing of Two-Way PostTensioned Concrete Slab, 1470
see Cosenza, Edoardo, 1573
see De Lorenzis, Laura, 155
- Narasiah, K. Subba**
see Zagury, Gérald J., 530
- Nataatmadja, A.**
Resilient Response of Recycled Concrete Road Aggregates, 1311
- Naughton, John E., III, ed.**
see Buttlar, William G., ed., 1565
- Nava, Robin C.**
see Morton, Robert A., 1387
- Navalurkar, Rajendra K.**
Fracture Analysis of High Strength Concrete Members, 992
- Navratil, James D.**
see Sun, Darren Delai, 544
- Ndegwa, Pius M.**
Effects of Solid Levels and Chemical Additives on Removal of Solids and Phosphorus in Swine Manure, 567
- Ndiritu, Simon**
see Saka, Anthony A., P.E., 1296
- Ndumu, Alberto S.**
Scale-Dependent Subsurface Dispersion: A Fractal-Based Stochastic Model, 775
- Neary, V. S.**
Sediment Transport in Proposed Geomorphic Channel for Napa River, 752
- Neis, V. V., P.E.**
see Sakr, K. M., P.E., 1197
- Nelligan-Doran, Sherrill E.**
see Reese, Amy Groome, 1488
- Nelson, Carl A.**
Explicit Kinematic Solution for Tall Rigid-Jointed Frames, 423
- Nelson, E. James**
see Noman, Nawajish Sayeed, 1378
- Nelson, John D.**
see Perko, Howard A., 604
- Nestler, John M.**
see Goodwin, R. Andrew, 1377
- Netusil, Noelwah R.**
see Huszar, Eric J., 1375
- Neufeld, Ronald D.**
see Dilmore, Robert M., 274
- Neves, I. Cabrita**
see Reis, Maria de Lurdes B. C., 998
- Newell, Charles J., P.E.**
see Rifai, Hanadi S., P.E., 14
- Ng, Catherine S. K.**
see Shen, L. Y., 219
- Ng, Charles W. W.**
Behavior of a Loosely Compacted Unsaturated Volcanic Soil, 664
New Failure Load Criterion for Large Diameter Bored Piles in Weathered Geomaterials, 615
Response of Laterally Loaded Large-Diameter Bored Pile Groups, 630
Side Resistance of Large Diameter Bored Piles Socketed into Decomposed Rocks, 631
Three-Dimensional Analysis of Performance of Laterally Loaded Sleeved Piles in Sloping Ground, 616
see Lei, G. H., 379
see Zhang, Limin, 667
- Ng, J.**
see Vecchio, F. J., 1112
- Ng, Tang-Tat**
Fabric Evolution of Ellipsoidal Arrays with Different Particle Shapes, 394
- Ngai, Stephen**
see Skimmore, Martin, 228
- Ngo, Ehren B.**
When Disasters and Age Collide: Reviewing Vulnerability of the Elderly, 1429
- Nguyen, Dai Minh**
Brittle Failure and Bond Development Length of CFRP-Concrete Beams, 144

AUTHOR INDEX

Ohsaki

- Nguyen, Tang-Hung
Computer-Generated Building Data: Topological Information, 203
- Nicholas, David G., P.E.
Airport on the Move, 1541
- Nichols, Cory, P.E.
see Glagola, Charles R., P.E., 911
- Nicholson, Alan
see Lalziell, Erica, 1273
- Nie, Meng-Xi
Cavitation Prevention with Roughened Surface, 750
- Nielsen, Kevin
see Finnie, John, 770
- Nikolaou, Sissy
Evaluation of Site Factors for Seismic Bridge Design in New York City Area, 120
- Nikora, Vladimir
Spatially Averaged Open-Channel Flow over Rough Bed, 680
- Nip, Dora C. N.
see Ng, Charles W. W., 630
- Nishimura, Migitoshi
see Ueno, Katsutoshi, 595
- Nishiyama, Minehiro
see Assa, Beni, 1157
- Nishiyama, Minehiro, Ph.D.
see Assa, Beni, Ph.D., 1158
- Nisticò, Nicola
see Monti, Giorgio, 153
- Nix, Stephan J.
see Burian, Steven J., 776
- Nixon, W. B., P.E.
see Shelley, M. L., 566
- Noel, Shane
see Uang, Chia-Ming, 8
- Noguera, Daniel R.
see Pizarro, Gonzalo, 527
- Noji, Eric K.
Medical and Public Health Consequences of Natural and Biological Disasters, 1435
- Noman, Nawajish Sayeed
Review of Automated Floodplain Delineation from Digital Terrain Models, 1378
- Nonaka, Tetsuya
Dynamic Response of Half-Through Steel Arch Bridge Using Fiber Model, 110
- Norvell, Wendell
see Ebbs, Stephen, 1454
- Norville, H. Scott, P.E.
Considerations for Blast-Resistant Glazing Design, 47
- Noto, L.
DORA Algorithm for Network Flow Models with Improved Stability and Convergence Properties, 703
- Nova, R.
see Vatsala, A., 633
- Novak, John T.
see Crane, Cynthia E., 524
- Novak, P.
Teaching of Hydraulic Design at University of Newcastle upon Tyne, 764
- Nowak, Andrzej S.
see Eom, Junsik, 111
- Nunzianti, L.
see Gesualdo, A., 665
- Nusier, Osama Kh, PhD
see Alawneh, Ahmed Shlash, PhD, 1033
- Oberlender, Garold D.
Predicting Accuracy of Early Cost Estimates Based on Estimate Quality, 231
- Obnosov, Yu. V.
see Kacimov, A. R., 798
- O'Connell, Heather M.
Response and Analysis of Steel Trusses for Fatigue Truck Loading, 125
- O'Connell, P. E.
see Perumal, Muthiah, 796
- O'Connor, Brian A.
see Kim, Hyoseob, 1416
- O'Connor, David
see Ali, Faris A., 1476
- O'Connor, James T.
see El-Diraby, Tamer E., 258
- Oda, Masanobu
Microstructural Interpretation on Reliquefaction of Saturated Granular Soils under Cyclic Loading, 608
- O'Donnell, Susan M.
see Gelda, Rakesh K., 1372
- O'Donoghue, Tom
N-Type Sediment Bed Response under Standing Wave, 1408
- Oehlers, Deric J.
see Ali, M. S. Mohamed, 1237
- O'Fallon, J. D.
see Park, S. W., 108
- Ogawa, Atsuhisa
see Redon, Carl, 1019
- Ogden, Fred L.
GIS and Distributed Watershed Models. II: Modules, Interfaces, and Models, 832
see Garbrecht, Jürgen, 831
- Ogunc, Cahit
see El-Tawil, Sherif, 172
- Oh, Byung Hwan
Realistic Long-Term Prediction of Prestress Forces in PSC Box Girder Bridges, 1198
- Oh, Heung-Un
see Sisiopiku, Virginia P., 1271
- Ohsaki, Makoto
Sensitivity of Optimum Designs for Spatially Varying Ground Motions, 1223

Ohtsu, Masayasu

see Shi, Zihai, 1195

see Shi, Zihai, 1222

Ojha, C. S. P.

Aspects of Inlet Boundary Prescription for a Turbulent Flow Field, 733

Influence of Porosity on Piping Models of Levee Failure, 669

Okeil, Ayman

see El-Tawil, Sherif, 172

Okuda, Motoi

see Kitagawa, Makoto, 105

see Kondoh, Munenobu, 75

Olds, John R.

see Way, David W., 24

Olesen, John Forbes

Fictitious Crack Propagation in Fiber-Reinforced Concrete Beams, 309

Oliver, Kerry D.

see Famiyessin, Olubayo O. R., 1228

Olivera, Francisco, P.E.

Extracting Hydrologic Information from Spatial Data for HMS Modeling, 833

Oloufa, Amr A.

see Nguyen, Tang-Hung, 203

Olson, Richard Stuart

see Olson, Robert A., 1433

Olson, Robert A.

Socioeconomic Reverberations of Earthquake Prediction: Snapshot in Time, Peru 1979-1981, 1433

O'Mahony, M.

see Murphy, M., 1008

O'Mahony, Michael J.

see Owende, Philip M. O., 1286

Omary, Mohammad

Modeling Water Distribution for Irrigation Machine with Small Spray Nozzles, 877

Omenzetter, Piotr

Interaction of Nonconservative 1D Continuum and Moving MDOF Oscillator, 405

see Wilde, Krzysztof, 287

Omigbodun, Akintola

Value Engineering and Optimal Building Projects, 42

O'Neill, Michael W.

see Huang, An-Bin, 605

Önöz, B.

Power Distribution for Low Streamflows, 822

Ooi, J. Y.

see Chen, J. F., 402

see Sanad, A. M., 399

Oppenheim, Irving J.

Vibration and Damping in Three-Bar Tensegrity Structure, 27

O'Reilly, W. C.

see Elgar, Steve, 1380

O'Rourke, Mary K.

see Moschandreas, D. J., 537

O'Rourke, Michael

Rain-on-Snow Surcharge for Roof Design, 1078

Orozco, AnaLilia

see Maji, Arup, 349

Orozco, Miguel

see Osegueda, Roberto A., 34

Ortega, Rafael, P.E.

see Nandagiri, Showri, P.E., 1549

Osberg, Carl B.

see Dexter, Robert J., 117

Osegueda, Roberto A.

Contour Dust Shield Performance, 34

Osmun, Daniel W., P.E.

Redesigning the San Roque Dam, 1502

Osorio, Francisco

Optimization of Bed Material Height in a Submerged Biological Aerated Filter, 552

Ostertag, C. P.

see Celestino, T., 1020

Osula, D. O. A.

Effects of Fuel Price Increase in Nigeria on Travel Expenditures, 1274

Otani, Shunsuke

see Wu, Xiao-Han, 1118

Otsuki, Nobuaki

Use of Electrodeposition for Repair of Concrete with Shrinkage Cracks, 985

see Mohammed, Tarek Uddin, 993

Ou, Yanmei

see Khatib, Zaher, 1257

Ouyang, C. F.

see You, S. J., 534

Ovando-Shelley, Efraín

Underexcavation for Leveling Buildings in Mexico City: Case of the Metropolitan Cathedral and the Sagrario Church, 45

Oweis, Issa S.

Bridge Foundationations for Hightstown Bypass, 662

Owende, Philip M. O.

Minimizing Distress on Flexible Pavements using Variable Tire Pressure, 1286

Owens, Emmet M.

see Gelda, Rakesh K., 528

Owens, Frank

see Hag-Elsafi, Osman, 1203

Pacelli de Andrade, W.

see Bittencourt, R. M., 971

Pageau, Stephane S.

see Sues, Robert H., 36

Pai, Suresh P.

Influence of Fiber Undulations on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 17

AUTHOR INDEX

Park

- Influence of Residual Strains on Buckling of Thin Filament-Wound Cylinders in Axial Compression, 18
- Painter, David J.**
see Connell, Robert J., 819
- Pak, Ronald Y. S.**
see Dewoolkar, Mandar M., 609
- Palmer, Richard N., P.E.**
see Reese, Amy Groome, 1488
- Palmquist, Shane M.**
Compressive Behavior of Concrete with Vitrified Soil Aggregate, 1018
- Pamuk, Ahmet**
see Ling, Hoe I., 657
- Pan, A. D. E.**
see Peng, J. L., 1101
- Pan, Austin D. E.**
see Lee, Tai-Kuang, 1093
- Pan, Chi-Ling**
Yield Moment of Cold-Formed Steel Beams under Different Strain Rates, 1102
- Pan, Henry**
see Yu, Shaw L., 1354
- Pan, Tso-Chien**
Vehicle-Induced Floor Vibrations in a Multistory Factory Building, 1037
- Panda, Bikasha Chandra**
Source of Jointing Sand for Concrete Block Pavement, 999
- Pandey, M. D.**
Assessment of an L-Kurtosis-Based Criterion for Quantile Estimation, 806
- Panigrahi, Bijay K., ed.**
Integrated Surface and Ground Water Management, 1593
- Pantazopoulou, S. J.**
Modeling Cover-Cracking due to Reinforcement Corrosion in RC Structures, 318
Repair of Corrosion-Damaged Columns with FRP Wraps, 143
Triaxial Tests of Fiber-Reinforced Concrete, 1012
see Imran, Iswandi, 310
- Papadakis, George Ch.**
see Zarakis, Prodromos D., 1156
- Papadimitriou, Achilleas G.**
Plasticity Model for Sand under Small and Large Cyclic Strains, 660
- Papagiannakis, T.**
Computer Model for Life-Cycle Cost Analysis of Roadway Pavements, 190
- Papakonstantinou, Christos G.**
Fatigue Behavior of RC Beams Strengthened with GFRP Sheets, 170
- Papalou, Angeliki**
Seismic Elastic Response of Earth Dams with Canyon Interaction, 611
- Papanicolaou, A. N.**
Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment, 301
see Hotchkiss, Rollin H., 768
- Papastamatiou, Dimitri**
see Mylonakis, George, 122
- Papoulia, K. D.**
see Pantazopoulou, S. J., 318
- Pappas, Y. Z.**
Markov Chains for Damage Accumulation of Organic and Ceramic Matrix Composites, 383
- Paquette, Jocelyn**
Out-of-Plane Seismic Evaluation and Retrofit of Turn-of-the-Century North American Masonry Walls, 1137
- Paquier, André**
see Belaud, Gilles, 859
- Paramasivam, P.**
see Mansur, M. A., 1022
- Parchure, Trimbak M.**
Desktop Method for Estimating Vessel-Induced Sediment Suspension, 720
- Paret, Terrence F.**
The W1 Issue. I: Extent of Weld Fracturing during Northridge Earthquake, 6
- Park, Byungkyu "Brian"**
Evaluating Reliability of TRANSYT-7F Optimization Schemes, 1295
- Park, D.**
see Rilett, L. R., P.E., 1322
- Park, Hyo-Gi**
see Kim, Moon-Young, 367
- Park, Il C.**
see Kang, Leen S., 256
- Park, Inbo**
see Kim, Hyoseob, 1416
- Park, Jae K.**
see Kim, Jae Y., 582
- Park, Jae-Woo**
see Chun, Chan-Lan, 484
- Park, Jungsu**
Evaluation of Slip Feed System for Vapor-Phase Bioreactors, 553
- Park, Moonseo**
see Pena-Mora, Feniosky, 264
- Park, S. W.**
Seismic Performance of RC Bridge Column under Repeated Ground Motions, 108
- Park, S. W.**
Fitting Prony-Series Viscoelastic Models with Power-Law Presmoothing, 970
- Park, Sun-Kyu**
Bearing Replacement for Prestressed Concrete I-Girder Bridges, 88

Parker, D. S., P.E.

Review of Folklore in Design and Operation of Secondary Clarifiers, 488

Review of Two Decades of Experience with TF/SC Process, 476

Parker, Gary

see Imran, Jasim, 758

Parker, Harvey W., ed.

see Celestino, Tarcísio B., ed., 1604

Parlange, Marc B.

see Szilagyi, Jozsef, 1373

Parlos, Alexander G.

Gain-Scheduled Adaptive Control for Seismically Excited Hybrid Structures, 1219

Parola, A. C.

see Hagerty, D. J., 718

Parra-Montesinos, Gustavo

Modeling Shear Behavior of Hybrid RCS Beam-Column Connections, 1069

Parrish, Joe

see Whittaker, William, 23

Parvin, Azadeh

Behavior of FRP Jacketed Concrete Columns under Eccentric Loading, 159

Passerini, Eve

Who Is to Blame for the Failures of Sustainable Reconstruction Projects?, 1425

Patil, Ramappa G.

Integrating Equation of Gradually Varied Flow, 725

Patil, Shekhar S.

see Anderson, Stuart D., 950

Patnaik, Anil K.

Behavior of Composite Concrete Beams with Smooth Interface, 1113

Patra, Nihar Ranjan

Ultimate Lateral Resistance of Pile Groups in Sand, 614

Paul, Cynthia C.

The Power of the Press Release, 1485

Payer, J.

see Zmeureanu, R., P.E., 53

Pease, Kent, P.E.

The Long Arch, 1511

Pecce, M.

Experimental and Analytical Evaluation of Bond Properties of GFRP Bars, 1005

Pecce, Marisa

see Cosenza, Edoardo, 1080

Pechon, Sean E.

see Bakeer, Reda M., 991

Peckitt, Stephen J.

see Suraji, Akhmad, 251

Pecknold, David A.

see Haj-Ali, Rami, 362

Peirce, J. Jeffrey

see Jousset, Stéphane, 470

see Tabachow, Ross M., 493

see Vallerio, Daniel A., 549

Pelkey, Neil W.

see Leach, William D., 1376

Pellegrino, A.

see Hueckel, T., 655

Peña-Mora, Feniosky

Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects, 211

Dynamic Planning for Fast-Tracking Building Construction Projects, 264

Effect of Delivery Systems on Collaborative Negotiations for Large-Scale Infrastructure Projects, 953

Effective Partnering in Innovative Procured Multicultural Project, 942

Web-Centric Framework for Secure and Legally Binding Electronic Transactions in Large-Scale A/E/C Projects, 201

Peng, J. L.

Approximate Analysis Method for Modular Tubular Falsework, 1101

Pennock, Lori-Lynn C.

see Naik, Tarun R., 1477

Pepi, Maria Cristina

see Jamiolkowski, Michele, 652

Perko, Howard A.

Surface Cleanliness Effect on Lunar Soil Shear Strength, 604

Perry, Dale C.

see Kishor, Mehta C., 1589

Perugu, Suresh

see Ting, C. K., 759

Perumal, Muthiah

Field Applications of a Variable-Parameter Muskingum Method, 796

Pessiki, Stephen

Axial Behavior of Reinforced Concrete Columns Confined with FRP Jackets, 169

Pesterev, A. V.

Response of Elastic Continuum Carrying Multiple Moving Oscillators, 307

Peters, John F.

see Horner, David A., 398

Peterson, S. T.

Application of Dynamic System Identification to Timber Beams. I, 1121

Application of Dynamic System Identification to Timber Beams. II, 1122

Petrou, M. F.

see Ramasubramanian, M., 968

Petrou, Michael F.

see Papakonstantinou, Christos G., 170

Pezeshk, Shahram

see Burdette, Edwin G., 70

AUTHOR INDEX

Poser

- Pfuntner, Jerry, P.E.**
Closing the Gap, 1556
- Phelps, Don, ed.**
Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges, 1566
- Pheng, Low Sui**
Just-in-Time Management of Precast Concrete Components, 270
Quality Function Deployment in Design/Build Projects, 41
- Phillips, Ryan**
see Zhu, Fanyu, 627
- Pi, Yong-Lin**
Strength Design of Steel I-Section Beams Curved in Plan, 1146
- Piccardo, Giuseppe**
see Carassale, Luigi, 329
- Pickering, John B., P.E.**
see Deleeuw, David N., P.E., 1530
- Piechota, Thomas C.**
Development of Exceedance Probability Streamflow Forecast, 773
- Pielke, Roger A., Jr.**
see Downton, Mary W., 1436
- Pierepiekarz, Mark R., P.E.**
Damage Report from Seattle, 1522
- Pignolet, G.**
Space Solar Power: Environmental Questions and Future Studies, 25
- Pijaudier-Cabot, Gilles**
see Delaplace, Arnaud, 352
- Piltner, R.**
see Celestino, T., 1020
- Piluso, Vincenzo**
Ultimate Behavior of Bolted T-Stubs. I: Theoretical Model, 1151
Ultimate Behavior of Bolted T-Stubs. II: Model Validation, 1152
- Pircher, Martin**
Buckling of Thin-Walled Silos and Tanks under Axial Load—Some New Aspects, 1200
- Pisano, William C.**
see Fan, Chi-Yuan, 1358
- Pise, Prabhakar Jagannath**
see Patra, Nihar Ranjan, 614
- Pitt, Robert E.**
see Burian, Steven J., 776
- Pitzrick, Deborah A.**
One Company's Approach to the Recruitment and Retention of Engineers, 915
- Pizarro, Gonzalo**
Quantitative Cellular Automaton Model for Biofilms, 527
- Plasencia, Doug**
see Larson, Larry, 1437
- Playán, E.**
see Faci, J. M., 886
- Plumtree, A.**
see Al-Mayah, A., 157
- Podolny, Walter, Jr.**
Making the Most of HPC, 1489
- Poh, K. W.**
Stress-Strain-Temperature Relationship for Structural Steel, 1016
- Poh, Teoh Yaw**
Ground Movements Associated with Wall Construction: Case Histories, 668
- Poitou, Arnaud**
Orienting Fibers by Extrusion in Reinforced Reactive Powder Concrete, 345
- Polak, E.**
see Royset, J. O., 347
- Polito, Carmine P.**
Effects of Nonplastic Fines on the Liquefaction Resistance of Sands, 607
- Pollack-Johnson, Bruce**
see Liberatore, Matthew J., 222
- Pollock, D. G.**
see Peterson, S. T., 1121
see Peterson, S. T., 1122
- Polus, Abishai**
Optimal Setback Planning and Delay Analysis for HOV Lanes, 1318
- Ponce, Victor M.**
Modeling Looped Ratings in Muskingum-Cunge Routing, 787
- Poon, Dennis C. K.**
see Tomasetti, Richard L., P.E., 1536
- Popov, B. N.**
see Ramasubramanian, M., 968
- Popov, Egor P.**
see Sasaki, Mehrdad, 374
- Popova, S.**
see Ramasubramanian, M., 968
- Popovic, D.**
Compression Tests on Cold-Formed Angles Loaded Parallel with a Leg, 1141
- Porbaha, Ali**
see Tsuchida, Takashi, 987
- Porfiri, K.**
see Lane, S. N., 749
- Porrás, Pedro J., Jr.**
see Porrás, Pedro J., Sr., 782
- Porrás, Pedro J., Sr.**
New Perspective on Rainfall Frequency Curves, 782
- Porter, M. I.**
Adhesive Contact between a Rigid Punch and a Half-Plane via a Thin, Soft Interlayer, 298
- Poser, M.**
see Dowd, J., 126

- Postma, P. F.**
see Jeng, D. S., 1305
- Poulos, H. G.**
see Cunha, R. P., 629
see Tabesh, A., 638
- Poulsen, Tjalfe G.**
 Modeling Lateral Gas Transport in Soil Adjacent to Old Landfill, 447
- Pourvahidi, Shahin, P.E.**
see Ashley, Mark, P.E., 1527
- Powell, Anne**
 September Eleventh, The Days After, The Days Ahead, 1553
- Powell, Anne Elizabeth**
 Rebuilding America's Infrastructure, 1540
- Powell, David**
 Tunneling with Care, 1557
- Power, Maurice S.**
see Youd, T. L., 644
- Prakoso, Widjojo A.**
 Piled Raft Foundation Design, 572
- Prasad, S. Siva**
see Mishra, P. K., 872
- Prassas, Elena S.**
see Levinson, Herbert S., 1270
- Price, Cynthia B.**
 Relationship between Redox Potential and pH on RDX Transformation in Soil-Water Slurries, 433
- Prietto, Pedro D. M.**
see Schnaid, Fernando, 648
- Prietto, Pedro Domingos Marques**
see Consoli, Nilo Cesar, 640
- Prion, G. L.**
see Durham, Jennifer, 1238
- Prion, Helmut G. L., P.E.**
see Schreyer, Alexander, 1173
- Protopapas, Angelos L.**
see Maloof, Salim, 793
- Rowse, Terry D.**
 River-Ice Ecology. I: Hydrologic, Geomorphic, and Water-Quality Aspects, 128
 River-Ice Ecology. II: Biological Aspects, 129
- Psycharis, John**
see Mylonakis, George, 122
- Pulugurtha, Srinivas S.**
 Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy under Static Conditions, 1309
 Using Genetic Algorithms to Evaluate Aircraft Ground Holding Policy in Real Time, 1310
- Puñal, A.**
 Automatic Start-Up of UASB Reactors, 478
- Purkey, David R.**
 Drainage Reduction under Land Retirement over a Shallow Water Table, 854
- Habitat Restoration and Agricultural Production under Land Retirement, 888
- Puskas, Barry M.**
see Witter, Jonathan D., 1246
- Qi, Lan**
see Ding, Hongyan, 140
- Qi, Rong**
see Yang, Min, 542
- Qi, S.**
see Sullivan, P. D., 456
- Qian, Yi**
see Hao, Xiaodi, 443
- Qian, Z. Q.**
 Stress Distribution at the Interface Corner of a Tri-Material Structure, 364
- Qiao, Pizhong**
 Local Buckling of Composite FRP Shapes by Discrete Plate Analysis, 1100
see Xu, X. Frank, 412
- Qin, F.**
see Soh, C. K., 1085
- Qiu, Huihe**
see Kuang, Jun, 280
- Qu, W. L.**
see Xu, Y. L., 1170
- Querol, Xavier**
see Moreno, Natàlia, 555
- Quigley, Marcus M.**
see Strecker, Eric, 1350
- Quinn, Scott O.**
see Effler, Steven W., 1361
- Raad, Lutfi**
see Zhang, Tinggang, 1260
- Rabay'a, Amer**
see Abaza, Khaled A., 1317
- Rabideau, A. J.**
see Ganguly, C., 9
- Rabinovitch, O.**
 Delamination Failure of RC Beams Strengthened with FRP Strips—A Closed-Form High-Order and Fracture Mechanics Approach, 376
 High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips, 1164
 Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips, 1116
 On Edge Stresses Control in Strengthened RC Beams with FRP Strips: Adhesive Layer Profile Effect, 315
- Radovanovic, R. S.**
see Teskey, W. F., 1244
- Raghuwanshi, N. S.**
see Mishra, A., 858
- Ragneau, Eric**
see Guines, Dominique, 401
- Rahimi, Hamid**
 Concrete Beams Strengthened with Externally Bonded FRP Plates, 148

AUTHOR INDEX

Reddy

- Raichlen, Fredric**
see Li, Ying, 1384
- Rajapakse, R. K. N. D.**
see Ahmad, S., 295
- Rajaratnam, N.**
see Mazurek, K. A., 722
- Rajashree, S. S.**
 Nonlinear Finite-Element Modeling of Batter Piles under Lateral Load, 626
- Raju, Kittur G. Ranga**
see Perumal, Muthiah, 796
- Rakha, Hesham**
 Vehicle Dynamics Model for Predicting Maximum Truck Acceleration Levels, 1307
- Rakhshandehroo, G. Reza**
 Hydraulic Conductivities of Cationic Surfactant Modified Soil Mixtures, 518
- Ramadhan, Rezaqallah H.**
see Wahhab, Hamad I. Al-Abdul, 1007
- Ramamurthy, K.**
see Anand, K. B., 44
- Raman, H.**
see Chandramouli, V., 1345
- Ramasubramanian, M.**
 Inhibiting Action of Calcium Nitrite on Carbon Steel Rebars, 968
- Ramaswami, Anu**
 Assessing Multicomponent DNAPL Biostabilization. I: Coal Tar, 562
- Measuring Phytoremediation Parameters for Volatile Organic Compounds: Focus on MTBE, 1453**
see Bielefeldt, Angela R., 563
- Ramaswamy, A.**
see Ahlawat, A. S., 1224
- Ramey, George E.**
 Deck Thickness Considerations for CIP Reinforced Concrete Bridge Decks, 1466
- Ramme, Bruce W.**
see Naik, Tarun R., 474
see Naik, Tarun R., 1477
- Rammer, Douglas R.**
 Withdrawal Strength of Threaded Nails, 1124
- Randall, M.**
see Saidi, M., 92
- Randall, Todd A.**
 Evaluating Pedestrian Connectivity for Suburban Sustainability, 1324
- Randolph, M. F.**
see Dyson, G. J., 601
- Randrup, Thomas B.**
 Tree Root Intrusion in Sewer Systems: Review of Extent and Costs, 838
- Rane, Vishwanath C.**
see Alappat, Babu J., 275
- Ranjith, P. G.**
see Indraratna, B., 619
- Ranjithan, S. Ranji**
see Harrison, Kenneth W., 178
- Rao, A. Ramachandra**
 Effect of Short-Term Memory on Hurst Phenomenon, 788
- Rao, B. R. M.**
see Khan, M. Q. I., 1368
- Rao, D. P.**
see Khan, M. Q. I., 1368
- Rao, V. Ravi S.**
see Spanos, P. D., 300
- Rapp, Randy R., P.E.**
 Business Strategy: Ideas for Construction Master's Degrees, 920
 Evolution, Not Revolution, 959
- Rasdorf, William J., P.E.**
see Fennes, Steven J., 200
- Rashed, A.**
 Tests on Reinforced Partially Prestressed Concrete Tank Walls, 13
- Rasmussen, J. R.**
 Tests of X- and K-Joints in SHS Stainless Steel Tubes, 1205
- Rasmussen, K. J. R.**
see Popovic, D., 1141
- Rasmussen, Kim J.**
 Tests of X- and K-Joints in CHS Stainless Steel Tubes, 1206
- Raubenheimer, B.**
see Elgar, Steve, 1380
- Raviraj, S.**
see Iyengar, K. T. Sundara Raja, 373
- Ravisangar, V.**
 Effect of Sediment pH on Resuspension of Kaolinite Sediments, 495
- Rawlinson, Mark, P.E.**
see Osmun, Daniel W., P.E., 1502
- Ray, C., P.E.**
 Managing Nitrate Problems for Domestic Wells in Irrigated Alluvial Aquifers, 862
- Raz, Yoram**
see Shapira, Aviad, 223
- Realfonzo, R.**
see Pecce, M., 1005
- Rebeiz, Karim S.**
 Corporate Governance and Role of CEO in Engineering Companies, 943
 Effect of Variables on Shear Strength of Concrete Beams, 1029
- Reckhorn, Sayonara Brederode Ferreira**
 Experimental Investigations of Oxygenated Gasoline Dissolution, 455
- Reddy, K. Sudhakar**
see Kalaga, Ramachandra Rao, 1279

Reddy, Krishna R.

Effects of Soil Heterogeneity on Air Flow Patterns and Hydrocarbon Removal During Insitu Air Sparging, 591

Redon, Carl

Measuring and Modifying Interface Properties of PVA Fibers in ECC Matrix, 1019

Reed, Brian E.

see Masciola, David A., 465

see Vaughan, Ronald L., Jr., 1451

Reed, Dorothy

see Gardarsson, S., 308

Reese, Amy Groome

Tied by Water, 1488

Reffat, Rabee M.

Environmental Comfort Criteria: Weighting and Integration, 1044

Expert System for Environmental Quality Evaluation, 1045

Reis, Maria de Lurdes B. C.

High-Temperature Compressive Strength of Steel Fiber High-Strength Concrete, 998

Remseth, Svein

see Tryland, Tore, 1178

Ren, Dafan

Solutions of Complete Circular Cylindrical Shell under Concentrated Loads, 305

Renault, D.

Assessing Sensitivity Factors of Irrigation Delivery Structures, 902

Reno, Mark

see Duan, Lian, 1

Rens, Kevin L., P.E.

see Mohamed, Osama A., 986

Repette, Wellington L.

see Mailvaganam, Noel P., 1031

Reshetnik, Israel

see Polus, Abishai, 1318

Restrepo, J. I.

see Wang, Y. C., 164

Revels, Brian M.

see Smith, Brian L., 952

Revey, G. F., P.E.

Evaluating and Managing Construction Blasting Risk, 1465

Reynolds, Edward

see Osegueda, Roberto A., 34

Riad, S. M.

see Millard, S. G., 994

Ribberink, J. S.

see McLean, S. R., 1395

Richard, D. S.

see Cook, R. A., 1240

Richards, K. S.

see Bradbrook, K. F., 701

Ricles, James

see Mao, Changshi, 1190

Ricles, James M.

Posttensioned Seismic-Resistant Connections for Steel Frames, 1084

see Pessiki, Stephen, 169

Ries, R.

Integrated Computational Life-Cycle Assessment of Buildings, 179

Rifai, Hanadi S., P.E.

Modeling Natural Attenuation of Fuels with BIOPLUME III, 14

Riffel, Allison M.

see Bielefeldt, Angela R., 563

Rigato, Antonio

Database-Assisted Design, Standardization, and Wind Direction Effects, 1169

Rilett, L. R., P.E.

Incorporating Uncertainty and Multiple Objectives in Real-Time Route Selection, 1322

Riley, M. J.

Comparison of Cultures in Construction and Manufacturing, 957

Riley, Michael J.

see Brown, David C., 962

Ringhand, Paul

see Clark, Robert M., 490

Ritter, Mike, P.E.

see Yazdani, Nur, P.E., 72

Rittmann, B. E.

see Cooke, A. J., 647

Rivas, F. J.

Chemical-Biological Treatment of Table Olive Manufacturing Wastewater, 505

Rives, V.

see Inigo, A. C., 989

Rizzano, Gianvittorio

see Piluso, Vincenzo, 1151

see Piluso, Vincenzo, 1152

Roark, Gary W.

see Vaughan, Ronald L., Jr., 1451

Roberts, Mark C.

see Merz, Thomas E., 1371

Roberts, Philip J. W.

Mixing in Stratified Jets, 685

Robertson, C.

see Theegala, C. S., 1461

Robertson, Gary

see Moschandreas, D. J., 537

Robertson, Peter K.

see Youd, T. L., 644

Robertson, Stewart

Impact of Road Conditions on Elderly Drivers, 1284

Roberts-Wollmann, Carin L.

Live Load Tests of the San Antonio "Y", 119

AUTHOR INDEX

Rundell

- Robinson, D. N.**
Model of Viscoplasticity for Transversely Isotropic Inelastically Compressible Solids, 342
- Robinson, Paul F.**
see Avent, R. Richard, 969
- Robinson, R. Bruce**
Relative Dissolution Rates of Several Hydrated Limes, 499
- Robson, B. N.**
Effectiveness of Seismic Isolation of a Highly Skewed P/C I-Girder Bridge, 81
- Roca, E.**
see Puñal, A., 478
- Roche, Mark**
see Dallard, Pat, 104
- Rodd, Peter**
see Guan, Zhongwei, 1174
- Rodger, Albert A.**
see Famiyessin, Olubayo O. R., 1228
- Rodrigues, João Paulo C.**
see Reis, Maria de Lurdes B. C., 998
- Rodriguez-Gutierrez, J. A.**
M-P- Φ Diagrams for Reinforced, Partially, and Fully Prestressed Concrete Sections under Biaxial Bending and Axial Load, 1160
Reinforced, Partially, and Fully Prestressed Slender Concrete Columns under Biaxial Bending and Axial Load, 1161
- Roeder, Charles W.**
see MacRae, Gregory A., 1185
- Roesler, J.**
see Kurtis, K. E., 996
- Roesner, Larry A., P.E.**
Are Best-Management-Practice Criteria Really Environmentally Friendly?, 1351
- Rogers, J. S.**
see Kleiner, Y., 175
- Rogers, Jerry R., ed**
International Engineering History and Heritage: Improving Bridges to ASCE's 150th Anniversary, 1594
- Rogowsky, David M.**
see Rashed, A., 13
- Roitman, Ney**
see Faisca, Renata G., 389
- Rombach, Guenter A.**
see Keiter, Thorsten W. R., 400
- Romero, P.**
Relationship between the Representative Volume Element and Mechanical Properties of Asphalt Concrete, 977
- Rood, M. J.**
see Lordgooei, M., 464
see Sullivan, P. D., 456
- Rosati, G.**
Direct Tensile Tests on Concrete-like Materials: Structural and Constitutive Behaviors, 320
- Rose, Mark, P.E.**
see Khouri, Jeff, P.E., 1561
- Rosen, G.**
see Jahani, F., 500
see Jahani, F., 501
- Rosenberg, Sanders**
see Duke, Michael B., 26
- Rosowsky, David V.**
Probabilistic Construction Load Model for Multistory Reinforced-Concrete Buildings, 1050
- Ross, Carla**
see Burken, Joel G., 1458
- Rosso, R.**
see De Michele, C., 825
- Rosson, Barry T., P.E.**
Closed-Form Equations for Hardening of Sand-Lime Mortar Joints, 343
- Rostam-Abadi, M.**
see Lordgooei, M., 464
- Rotter, J. M.**
see Chen, J. F., 402
see Sanad, A. M., 399
- Rouillard, Vincent**
The Simulation of Road Surface Profiles, 1285
- Rouphail, Nagui M.**
see Park, Byungkyu "Brian", 1295
- Rousseau, C.**
see Mahadevan, S., 33
- Rousseau, Joe P.**
see Lu, Ning, 643
- Roux, Stéphane**
see Delaplace, Arnaud, 352
- Rowe, R. K.**
see Cooke, A. J., 647
- Roy, A. G.**
see Bradbrook, K. F., 701
- Royset, J. O.**
Reliability-Based Optimal Design of Series Structural Systems, 347
- Rozdilsky, Jack L.**
Second Hazards Assessment and Sustainable Hazards Mitigation: Disaster Recovery on Montserrat, 1427
- Rozenbaum, M.**
see Kirzhner, F., 138
- Rozzi, A.**
see Puñal, A., 478
- Rozzi, Alberto**
see Ficara, Elena, 515
- Rubin, Ellen, P.E.**
see Ramaswami, Anu, 1453
- Rundell, Bruce**
see Gernand, Jeff, 1452

Rushton, Betty T.

Low-Impact Parking Lot Design Reduces Runoff and Pollutant Loads, 1355

Russell, Alan D.

see Chevallier, Nicola J., 257

Russell, Jeffrey S.

see Moua, Bli, 239

see Moua, Bli, 1036

Ruth, Jessica

see Sun, Lu, 1266

Ryan, Philip, P.E.

see Bromley, Charles, P.E., 1510

Ryu, Jae-Suk

see Otsuki, Nobuaki, 985

Saad, M.

see Ahyerre, M., 458

Saadatmanesh, Hamid

see Tavakkolizadeh, Mohammadreza, 165

Sabbatini, Julian, P.E.

see Hunkele, Lester M., III, P.E., 1516

Saccomanno, F. F.

Identifying Black Spots along Highway SS107 in Southern Italy Using Two Models, 1320

Sackman, J. L.

see Hong, K.-J., 407

Sacks, Jerome

see Park, Byungkyl "Brian", 1295

Sadeh, Willy Z.

see Perko, Howard A., 604

Sadouki, Hamid

see Martinola, Giovanni, 983

Safronetz, Larry

see Berthelot, Curtis, P.E., 1292

Sagaseta, César

Prediction of Ground Movements due to Pile Driving in Clay, 576

Sager, Hans-Joachim

Tunnel with Vision, 1492

Sahely, Brian S. E.

Diagnosing Upsets in Anaerobic Wastewater Treatment Using Bayesian Belief Networks, 467

Sahoo, G. B.

Reservoir Release Policy for Large Irrigation System, 897

Saied, Faisal

see Liu, Yong, 1349

Saiidi, M.

Seismic Restraint Design Methods for Simply Supported Bridges, 92

Saiidi, M. Saiid

Shear Retrofit of Flared RC Bridge Columns Subjected to Earthquakes, 77

Saito, Tadashi

see Redon, Carl, 1019

Saito, Y.

see Sakumoto, Y., 1004

Saka, Anthony A.

Model for Determining Optimum Bus-Stop Spacing in Urban Areas, 1277

Saka, Anthony A., P.E.

Estimation of Mobile Emissions Reduction from Using Electronic Tolls, 1296

Saka, M. P.

see Sanad, A., 1166

Sakamoto, Ivan

see Singh, Amarjit, 1061

Sakellariou, M. G.

GIS-Based Estimation of Slope Stability, 1422

Sakr, K. M., P.E.

Load-Deflection Analyses of Double Wythe Unreinforced Masonry Walls, 1197

Sakumoto, Y.

Durability Evaluation of Intumescent Coating for Steel Frames, 1004

Salama, Ayman E., P.E.

see Jones, Michael H., 100

Salari, M. Reza

Analysis of Steel-Concrete Composite Frames with Bond-Slip, 1214

Salas, Jose D.

Relating Autocorrelations and Crossing Rates of Continuous- and Discrete-Valued Hydrologic Processes, 786

Salazar, Alfredo Reyes

Energy Dissipation at PR Frames under Seismic Loading, 1140

Saliby, Elie

see Baaj, M. Hadi, 1335

Salvador, R.

see Faci, J. M., 886

Salvatore, W.

see Croce, P., 71

Sammarco, Paolo

see Beltrami, Gian Mario, 1410

Sample, David J.

Geographic Information Systems, Decision Support Systems, and Urban Storm-Water Management, 1352

Sanad, A.

Shear Strength of Reinforced-Concrete Deep Beams using Neural Networks, 1166

Sanad, A. M.

Computations of Granular Flow and Pressures in a Flat-Bottomed Silo, 399

Sanchez, Charles A.

see Zerihun, Dawit, 878

Sanchez, M.R.

see Kuzmanović, B. O., 85

Sanders, Brett F.

Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method, 743

AUTHOR INDEX

Schonberg

- see* Jaffe, David A., 711
- Sanders, David H.**
see Saiidi, M. Saiid, 77
- Sanders, Paul F.**
see Weng, Chih-Huang, 569
- Sanjayan, J. G.**
see Candappa, D. C., 995
- Sansalone, John J.**
see Liu, Dingfang, 538
see Liu, Dingfang, 539
- Santamarina, J. C.**
see Díaz-Rodríguez, J. A., 641
- Santamarina, J. Carlos**
see Cho, Gye Chun, 579
- Santi, Paul M.**
Draining in a New Direction, 1524
- Santini, Silvia**
see Monti, Giorgio, 153
- Santoni, Rosa L.**
Airfields and Roads Construction Using Fiber Stabilization of Sands, 1265
Engineering Properties of Sand-Fiber Mixtures for Road Construction, 593
- Santoyo, Enrique**
see Ovando-Shelley, Efraín, 45
- Saouma, V. E.**
see Denarié, E., 335
- Sapountzakis, E. J.**
Nonuniform Torsion of Composite Bars by Boundary Element Method, 387
- Sarasua, Wayne A.**
see Dixon, Karen K., P.E., 204
- Sarkani, Shahram**
Comparative Study of Nonlinear Damage Accumulation Models in Stochastic Fatigue of FRP Laminates, 1108
see Michaelov, George, 319
- Sarma, R. V.**
see Naidu, V. S., 1407
- Sarma, Sarada K.**
see Malkawi, Abdallah I. Husein, 634
- Sarwar, Asad**
Long-Term Effects of Irrigation Water Conservation on Crop Production and Environment in Semiarid Areas, 900
- Sasani, Mehrdad**
Seismic Energy Dissipators for RC Panels: Analytical Studies, 374
Seismic Fragility of RC Structural Walls: Displacement Approach, 1097
- Sato, Chikashi**
Photocatalysis of TCA, TCE, and PCE in Flow-Through Reactor System, 506
- Sato, Masayuki**
see Oda, Masanobu, 608
- Satoh, S.**
see Minagawa, M., 185
- Sause, Richard**
Strength and Ductility of HPS-100W I-Girders in Negative Flexure, 93
see Pessiki, Stephen, 169
see Ricles, James M., 1084
- Savage, Bruce M.**
Flow over Ogee Spillway: Physical and Numerical Model Case Study, 726
- Sawaizumi, Shinichi**
see Inoue, Kazuo, 1154
- Sawalha, Ziad**
Evaluating Safety of Urban Arterial Roadways, 1272
- Sayed, T.**
see Hassan, Y., 1291
- Sayed, Tarek**
see Sawalha, Ziad, 1272
- Sbayti, H.**
see El-Fadel, M., 1325
- Scagnelli, Paul**
see Oweis, Issa S., 662
- Scali, Mauro J.**
see Kelley, Paul L., P.E., 1520
- Scanlan, Robert H.**
see Jones, Nicholas P., 99
- Scardina, Paolo**
Prediction and Measurement of Bubble Formation in Water Treatment, 551
- Scarponcini, Paul, P.E.**
Linear Reference System for Life-Cycle Integration, 182
- Schexnayder, Cliff J.**
see Schexnayder, Francis S., 1468
- Schexnayder, Francis S.**
Understanding Project Site Conditions, 1468
- Schlaich, M.**
Erection of Cable-Stayed Bridges Having Composite Decks with Precast Concrete Slabs, 95
- Schleiss, Anton**
see De Cesare, Giovanni, 670
- Schmeckpeper, Edwin R.**
see Yost, Joseph Robert, 124
- Schmeckpeper, Edwin R., P.E.**
see Yost, Joseph Robert, P.E., 145
- Schnabel, William**
see Licht, Louis, P.E., 1459
- Schnaid, Fernando**
Characterization of Cemented Sand in Triaxial Compression, 648
- Schneider, O. D.**
see Sharp, R. R., 479
- Schonberg, William P.**
see Zhou, Minggang, 336

- Schonfeld, Paul**
see Chien, Steven, 1269
see Jong, Jyh-Cherng, 1385
see Ting, Ching-Jung, 1388
see Ting, Ching-Jung, 1389
- Schopmeijer, M. E. D.**
see Zmeureanu, R., P.E., 53
- Schowaneck, Diederik**
see Vandevivere, Philippe, 529
- Schreyer, Alexander**
 Strength Capacities and Behavior of New Composite
 Timber-Steel Connector, 1173
- Schulbach, Kurt F.**
see Ventura, Francesca, 901
- Schulin, Rainer**
see Kohler, Andreas, 903
- Schultz, G. A.**
see Xu, Zongxue, 197
- Schumann, A.**
see Xu, Z. X., 795
- Schumate, Eric D.**
see Weber, Larry J., 700
- Schwarz, G. E.**
see Hubbard E. F., 691
- Schwarz, Michael**
 Response of Prestressed Concrete I-Girder Bridges to
 Live Load, 54
- Scott, Christopher A.**
 Modeling Soluble Phosphorus Desorption Kinetics in
 Tile Drainage, 865
- Scott, David**
see Hamoush, Sameer A., 158
- Scott, John F.**
see Campbell, Sharon G., 1367
- Scott, Richard**
 In the Wake of Tocama: Suspension Bridges and the
 Quest for Aerodynamic Stability, 1592
- Scullion, Tom, P.E.**
see Berthelot, Curtis, P.E., 1292
- Sebastian, Wendel M.**
 Significance of Midspan Debonding Failure in FRP-
 Plated Concrete Beams, 1163
- Seed, Raymond B.**
see Youd, T. L., 644
- Seemkoeei, Alireza Amiri**
 Strategy for Designing Geodetic Network with High
 Reliability and Geometrical Strength, 1250
- Sego, D. C.**
see Mazurek, K. A., 722
- Seibert, A. Frank**
see Al-Rayes, Aghyad W., 457
- Seible, Frieder**
see Seim, Werner, 150
- Seible, Frieder, P.E.**
see Davol, Andrew, 1165

- Seifi, Abbas**
 Interior-Point Method for Reservoir Operation with
 Stochastic Inflows, 1341
- Seim, Werner**
 External FRP PostStrengthening of Scaled Concrete
 Slabs, 150
- Sek, Michael A.**
see Rouillard, Vincent, 1285
- Selker, J. S.**
see Smesrud, J. K., 861
- Selker, John S.**
see Smesrud, Jason K., 650
- Selvadurai, A. P. S.**
see Yin, Jian-Hua, 661
- Semerjian, L.**
see Ayoub, G. M., 454
- Semmens, Michael J.**
 Modeling Biofilms on Gas-Permeable Supports: Flux
 Limitations, 445
- Sempere-Torres, D.**
see Dolciné, L., 771
- Sen, D. J.**
see Garg, N. K., 794
- Sennah, Khaled M.**
 State-of-the-Art in Design of Curved Box-Girder
 Bridges, 73
- Senouci, Ahmed B.**
 Resource Scheduling Using Neural Dynamics Model
 of Adeli and Park, 213
- Seo, Il Won**
 Moment-Based Calculation of Parameters for the Stor-
 age Zone Model for River Dispersion, 709
- Performance of Tee Diffusers in Shallow Water with
 Crossflow, 674**
- see* Han, Il Yeong, 821
- Seo, Seongwon**
 Estimation of CO₂ Emissions in Life Cycle of Resi-
 dential Buildings, 260
- Seo, Young-Kyo**
 Load-Factor Stability Analysis of Embankments on
 Saturated Soil Deposits, 610
- Serra, T. esa**
 Evaluation of Laser In Situ Scattering Instrument for
 Measuring Concentration of Phytoplankton, Purple
 Sulfur Bacteria, and Suspended Inorganic Sediments
 in Lakes, 558
- Serrano, Erik**
 Modeling of Finger-Joint Failure in Glued-Laminated
 Timber Beams, 1176
- Serrano, Sergio E.**
 Explicit Solution to Green and Ampt Infiltration Equa-
 tion, 812
- Setareh, Mehdi, P.E.**
 Development of a Teaching Tool for Building Con-
 struction, 38
- Sethi, Sandeep**
 Optimization of Hollow-Fiber Design and Low-
 Pressure Membrane System Operation, 489

AUTHOR INDEX

Shen

Setti, José Reynaldo
see Rakha, Hesham, 1307

Setunge, S.
see Candappa, D. C., 995

Sextos, Anastasios G.
see Kappos, Andreas J., 69

Sha, Wei
Heat Transfer in Fire across a Wall in Shallow Floor Structure, 1081

Shaari, A.
see Millard, S. G., 994

Shabayek, A. A.
Effect of Seasonal Factors on Performance of Container Terminals, 1394

Shackelford, Charles D.
see Burger, Craig A., 642

Shadewald, Jerry K.
Visualizing System-Wide Economic Impacts of Transportation Projects, 1334

Shah, Surendra P.
see Akkaya, Yilmaz, 314
see Easley, Thomas C., 350

Shahar, Yaakov
see Shapira, Aviad, 223

Shahawy, Mohsen
see Cai, Chun S., 1478
see El-Tawil, Sherif, 172
see Mirmiran, Amir, 146

Shahrestani, Shaun
see Jones, Stacey G., P.E., 1558

Shahrooz, Bahram M.
see Gong, Bingnian, 1144
see Gong, Bingnian, 1145

Shai, Offer
Combinatorial Representations in Structural Analysis, 195

Shamir, Uri
see Gordon, Ekaterina, 1343
see Kronaveter, Lea, 1344

Shane, Richard
see Eschenbach, Elizabeth A., 1347

Shanmugam, N. E.
see Liew, J. Y. Richard, 1094

Shao, Bing
see Yang, Min, 542

Shapira, Aviad
Design and Construction of High Multitier Shoring Towers: Case Study, 223

Sharma, Abyartha
see Mavinic, Donald S., P.E., 468

Sharma, Anupma
New MOC Model of Seawater Transport in Coastal Aquifers, 817

Sharma, Mukesh
Identification and Quantification of Environmental Issues of Aging Coal-Based Power Plant—Case Study, 277

Sharma, Reshmi
see Khoshmanesh, Aazam, 432

Sharma, Satish
Application of Neural Networks to Estimate AADT on Low-Volume Roads, 1308

Sharp, M. Keith
see Susheela, Narasimhan, 273

Sharp, R. R.
Evaluation of Drinking Water Biostability Using Biofilm Methods, 479

Shattaf, N. R.
Curing/Environment Effect on Pore Structure of Blended Cement Concrete, 1017

Shaw, M. R.
see Millard, S. G., 994

Shaw, Reuben D.
see Brown, David C., 962

Shaw, W. Douglass
see Huszar, Eric J., 1375

Shazbak, Shady M.
see Baaj, M. Hadi, 1335

Sheikh, S.
see Pantazopoulou, S. J., 143

Sheikh, Shamim A.
see Bayrak, Oguzhan, 1196

Shelke, Gerald, ed.
see Phelps, Don, ed., 1566

Shelley, M. L.
Dynamic Simulation of Landfill Waste Stabilization, 566

Shen, C. K.
see Lee, K. M., 11

Shen, Hayley
Sample Size Effects on Constitutive Relations of Granular Materials—A Numerical Simulation Study with Two-Dimensional Flow of Disks, 392

Shen, Hayley H.
Theoretical Study of the Drift of Small Rigid Floating Objects in a Wave Field, 1420
see Frankenstein, Susan, 133

Shen, Hsieh Wen
see Shiau, Jenq-Tzong, 1339

Shen, Hui-Shen
Interfacial Stresses in Beams and Slabs Bonded with Thin Plate, 326

Shen, Jie
Urban Planning Using Augmented Reality, 1331

Shen, L. Y.
Risk Assessment for Construction Joint Ventures in China, 219

Shen, Q. P.
see Fang, D. P., 1226

- see* Fang, D. P., 1227
- Shen, S. B.**
Chromium (III) Isolation from Acid Extract of Tannery Sludge, 1460
- Shen, Shui-Long**
see Chai, Jin-Chun, 659
- Shen, Siyuan J.**
Thermomechanical Behavior of Thermoviscoelastic Solid during Dynamic Crack Propagation, 355
- Shen, Weixin**
Thermal Cracking of Viscoelastic Asphalt-Concrete Pavement, 358
- Shenoy, Aroon**
Refinement of the Superpave Specification Parameter for Performance Grading of Asphalt, 1300
Unifying Asphalt Rheological Data Using the Material's Volumetric-Flow Rate, 1003
- Sherman, Lisa D.**
see Evans, Mark D., 1055
- Shi, Caijun**
Studies on Several Factors Affecting Hydration and Properties of Lime-Pozzolan Cements, 1025
- Shi, Jonathan Jingsheng**
Construction Delay Computation Method, 217
- Shi, Pan**
see Mahadevan, Sankaran, 414
- Shi, Z. Y.**
see Law, S. S., 415
- Shi, Zihai**
Application of Linear Programming to the Limit Analysis of Conical-Shaped Steel Water Tanks, 1222
Numerical Analysis of Multiple Cracks in Concrete Using the Discrete Approach, 1195
- Shiau, Jenq-Tzong**
Recurrence Analysis of Hydrologic Droughts of Differing Severity, 1339
- Shibata, Tsunenori**
see Mohammed, Tarek Uddin, 993
- Shieh, Chjeng-Lun**
Development and Geometric Similarity of Alluvial Deltas, 671
- Shieh, Wen K.**
see Chen, W. C., 561
- Shih, Li-Hsing**
Multiobjective Transportation Planning for Waste Hauling, 485
- Shih, Naai-Jung**
Volumetric Study of Reflected Glare from Glass Curtain Walls of Buildings, 48
- Shihata, S. A.**
Simplified Method to Assess Freeze-Thaw Durability of Soil Cement, 1000
- Shihata, Sabry A.**
Long-Term Strength and Durability of Soil Cement, 988
- Shim, W.**
see Vecchio, F. J., 1112
- Shimizu, Yoshiyuki**
Three-Dimensional DEM Simulations of Bulk Handling by Screw Conveyors, 377
- Shing, Benson P., ed.**
Modeling of Inelastic Behavior of RC Structures under Seismic Loads, 1597
- Shiohara, Hitoshi**
New Model for Shear Failure of RC Interior Beam-Column Connections, 1089
- see* Wu, Xiao-Han, 1118
- Shoemaker, Christine A.**
see Yoon, Jae-Heung, 198
- Sholar, Ted G.**
see Osegueda, Roberto A., 34
- Shomglin, K.**
see Kurtis, K. E., 996
- Shooner, F.**
see Blais, J. F., 1446
- Shrivastav, Prabhat**
Development of Feeder Routes for Suburban Railway Stations using Heuristic Approach, 1297
- Shu, Hung-Shan**
Stability Analysis of Box-Girder Cable-Stayed Bridges, 62
- Siegrist, Robert L.**
see Gates-Anderson, Dianne D., 472
- Sigaher, Ani N.**
see Constantinou, Michael C., 1083
- Siller, Thomas J.**
Sustainability and Critical Thinking in Civil Engineering Curriculum, 1058
- see* Grigg, Neil S., 1568
- Silva, Marcelo A.**
Failure Criterion for RC Members under Biaxial Bending and Axial Load, 1177
- Silva-Araya, Walter F.**
Unsteady Friction in Rough Pipes, 723
- Sim, C. C.**
see Wang, C. M., 428
- Simiu, Emil**
see Rigato, Antonio, 1169
- Simpson, A. R.**
see Wu, Z. Y., 183
- Simpson, David M.**
Community Emergency Response Training (CERTs): A Recent History and Review, 1426
- Sims, Bradford L.**
Effectiveness of the MCAA's Project Management Course, 1065
- Meeting Customer Expectations in the Construction Industry, 925
- Singh, Amarjit**
Multiple Claims in Construction Law: Educational Case Study, 1061
- Singh, Bhriugu N.**
Effects of Random Material Properties on Buckling of Composite Plates, 378

AUTHOR INDEX

Sobey

- Singh, H.
see Jafri, S., 37
- Singh, R.
see Mishra, A., 858
- Singh, R. D.
 Regional Flow Duration Models for Large Number of
 Ungauged Himalayan Catchments for Planning
 Microhydro Projects, 809
- Singh, Rajesh P.
see Mahar, Pooran S., 893
- Singh, Shivas S.
see Zhang, Xudong (David), 1075
- Singh, Shi W. S.
see Naik, Tarun R., 474
see Naik, Tarun R., 1477
- Singh, Sushil K.
 Confined Aquifer Parameters from Temporal Deriva-
 tive of Drawdowns, 710
- Identifying Effective Distance to a Recharge Boundary,
 732
- Identifying Impervious Boundary and Aquifer Param-
 eters from Pump-Test Data, 694
- Singh, Udai P., ed.
see Panigrahi, Bijay K., ed., 1593
- Singh, V. P.
see Ojha, C. S. P., 669
- Singh, Vijay P.
see Deng, Zhi-Qiang, 754
see Moramarco, Tommaso, 781
see Tsai, Ching-Nien, 826
- Siragy, E. F.
see Graham, L. L., 288
- Sirca, Gene F., Jr.
 Neural Network Model for Uplift Load Capacity of
 Metal Roof Panels, 1218
- Siret, F.
see Zmeureanu, R., P.E., 53
- Sisiopiku, Virginia P.
 Evaluation of Roundabout Performance Using SIDRA,
 1271
- Sitharam, T. G.
see Rajashree, S. S., 626
- Sivacoumar, R.
 Comparison and Performance Evaluation of Models
 Used for Vehicular Pollution Prediction, 494
- Sivaganesan, Mano
see Clark, Robert M., 490
- Skehan, Dominic
see Christen, Evan, 876
- Skitmore, Martin
 Bid-Spread, 228
- Skitmore, R. Martin
see Lowe, David J., 269
- Skowron, Eric M.
see Abt, Steven R., 863
- Sleep, Brent E.
see Morgan-Sagastume, Fernando, 477
- Small, J. C.
see Cunha, R. P., 629
- Smesrud, J. K.
 Analytical Solution for Normal Irrigation Distribution
 Parameters, 861
- Smesrud, Jason K.
 Effect of Soil-Particle Size Contrast on Capillary Barri-
 er Performance, 650
- Smit, Norm, P.E.
see Heacock, Jon, P.E., 1481
- Smith, Anne
see Culp, Gordon, 944
- Smith, Brian L.
 Planning for Civil Engineering Applications of Infor-
 mation Technology, 952
- Smith, Bruce G.
 Durability of Silica Fume Concrete Exposed to Chlo-
 ride in Hot Climates, 972
- Smith, Colleen A.
see Liberatore, Matthew J., 222
- Smith, D. W., P.E.
see Facey, R. M., P.E., 132
- Smith, Daniel W.
see Li, Hanbin, 486
see Li, Hanbin, 503
- Smith, Jane McKee, P.E.
see Smith, S. Jarrell, P.E., 1399
- Smith, John R.
see Lochr, Raymond C., 1463
- Smith, Kevin W.
see Smith, Brian L., 952
- Smith, L.
 Granular Dynamics Simulations of Heap Formation:
 The Effects of Feed Rate on Segregation Patterns in
 a Binary Granular Heap, 395
- Smith, Patrick M.
see Stewart, Jonathan P., 653
- Smith, Roger Ridsdill
see Dallard, Pat, 104
- Smith, S. Jarrell, P.E.
 Numerical Modeling of Waves at Ponce de Leon Inlet,
 Florida, 1399
- Smolkin, P. A.
see Warith, M. A., 1445
- Snyder, Mark B.
see Koubaa, Amir, 139
- Snyder, Richard L.
see Ventura, Francesca, 901
- Sobey, Rodney J.
 Evaluation of Numerical Models of Flood and Tide
 Propagation in Channels, 744

Socolofsky, Scott

Disaggregation of Daily Rainfall for Continuous Watershed Modeling, 808

Soh, A. K.

Alternative Approach to Modify a Discrete Kirchhoff Triangular Element, 369

Soh, C. K.

Behavior of Completely Overlapped Tubular Joints under Cyclic Loading, 1085

Numerical Method for Lower-Bound Solution of the Rigid-Plastic Limit Analysis Problem, 404

Soh, Chee Kiong

Evolutionary Programming for Inverse Problems in Civil Engineering, 189

see Wang, Zhonghui, 184

Sohn, Hoon

Damage Diagnosis Using Experimental Ritz Vectors, 416

Solaimanian, Mansour

see Lin, Huang-Hsiung, 1258

Solano, Eric

see Harrison, Kenneth W., 178

Solari, Giovanni

see Carassale, Luigi, 329

Solecki, Roman

see Liu, Xianbing, 313

Solis, Perfecto M., P.E.

see Nicholas, David G., P.E., 1541

Solomatine, Dimitri

see Dibike, Yonas B., 196

Somadevan, Niranjanan

see Masad, Eyad, 1315

Song, T.

Turbulence Measurement in Nonuniform Open-Channel Flow Using Acoustic Doppler Velocimeter (ADV), 302

Songer, Anthony D.

see Molenaar, Keith R., 202

Sonmez, Mustafa

see Torkamani, Morteza A. M., 1172

Soraa, M. P. Natali

see Rosati, G., 320

Sorenson, Harvey

see Fan, Chi-Yuan, 1358

Sorenson, James B., ed.

see Hicks, R. G., ed., 1595

Soudki, K.

see Al-Mayah, A., 157

Soudki, K. A.

Full Factorial Optimization of Concrete Mix Design for Hot Climates, 1023

Soudki, Khaled

see Masoud, Sobhy, 168

Soudki, Khaled A.

see White, Timothy W., 160

Soule, Natalie M.

Effects of Organic Cation Structure on Behavior of Organobentonites, 603

Souleyrette, Reginald R.

see Shadewald, Jerry K., 1334

Sourell, H.

see Faci, J. M., 886

Sousa, Joaquim

see Cunha, Maria da Conceição, 839

Spacone, Enrico

see Aprile, Alessandra, 1236

see Coleman, J., 1216

see Salari, M. Reza, 1214

Spadea, G.

Strength and Ductility of RC Beams Repaired with Bonded CFRP Laminates, 97

Spadea, Giuseppe

see Colotti, Vincenzo, 1114

Spano, Donatella

see Ventura, Francesca, 901

Spanos, P. D.

Random Field Representation in a Biorthogonal Wavelet Basis, 300

see Pappas, Y. Z., 383

Speece, Richard E.

see Azbar, Nuri, 459

Spieler, Richard, P.E.

see Kissida, John, 1444

Springfield, John

see Mailvaganam, Noel P., 1031

Srinivasa Murthy, B. R.

see Vatsala, A., 633

St. John, John P., P.E.

see Blumberg, Alan F., 5

Stachula, Anna

see Iskander, Maged G., P.E., 586

Stakhiv, Eugene Z., ed.

see Haimes, Yacov Y., ed., 1603

Stalnaker, Judith J., P.E.

see Mohamed, Osama A., 986

Stamm, Roan, P.E.

Extended Life Span, 1539

Stammer, Robert E., Jr.

see McDonald, David R., Jr., 1280

Stamos, Dimitrios G., PhD

Reflection and Transmission of Waves over Submerged Breakwaters, 289

Stang, Henrik

see Zhang, Jun, 1026

Stange, K. A.

see DeBoer, D. W., 892

Stanton, John F.

see Barr, Paul J., 91

AUTHOR INDEX

Sun

- Staritz, Peter**
see Whittaker, William, 23
- Starkey, Steven, P.E.**
see Heacock, Jon, P.E., 1481
- Stathopoulos, T., P.E.**
see Zmeureanu, R., P.E., 53
- Stavridis, L. T.**
 Alternative Layout for the Prestressing of Slab Bridges, 94
- Stefan, Heinz G.**
see Stefanovic, Dragoslav L., 736
- Stefanovic, Dragoslav L.**
 Accurate Two-Dimensional Simulation of Advective-Diffusive-Reactive Transport, 736
- Stein, V. B.**
 Numerical Model for Biological Oxidation and Migration of Methane in Soils, 1464
- Steinberg, Ari, P.E.**
 Terminal Island Turnaround, 1528
- Steinberg, Laura J.**
see Cruz, Ana Maria, 1440
- Steingröver, Andreas**
 Intermodal Innovation, 1505
- Stelling, Gous S.**
see Busnelli, Marcela M., 678
- Stewart, Jonathan P.**
 Seismic Performance of Hillside Fills, 653
see Liu, Andrew H., 663
- Stewart, Kevin**
see Guo, James C. Y., 774
- Stewart, M. P.**
see Featherstone, W. E., 1245
- Stewart, Mark G.**
 Effect of Construction and Service Loads on Reliability of Existing RC Buildings, 1212
see Hossain, Nasser B., 1048
see Rosowsky, David V., 1050
- Stinnette, P.**
see Thilakasiri, H. S., 573
- Stockstill, Richard L.**
 Simulating Barge Drawdown and Currents in Channel and Backwater Areas, 1413
- Stojadinović, Božidar**
see Mackie, Kevin, 109
- Stokoe, Kenneth H., II**
see Youd, T. L., 644
- Stratan, Aurel**
see Dubina, Dan, 1086
- Strecker, Eric**
 Determining Urban Storm Water BMP Effectiveness, 1350
- Street, Robert L.**
see Zedler, Emily A., 708
- Stroh, Robert C.**
see Torbica, Zeljko M., 220
- Strunin, D. V.**
 Transition to Self-Similarity of Diffusion of Tracer in Turbulent Patch, 406
- Sturm, T. W.**
see Ravisangar, V., 495
- Styles, Stuart**
see Burt, Charles M., 867
- Su, Nan**
 Structural Evaluations of Reinforced Concrete Buildings Damaged by the 921 Taiwan Earthquake, 1474
- Suah, Peter G., P.E.**
 Going Against the Grain, 1547
- Subbarao, Chillara**
see Ghosh, Ambarish, 975
- Subrahmanyam, C.**
see Khan, M. Q. I., 1368
- Suelter, Jason L.**
see Rosson, Barry T., P.E., 343
- Sues, Robert H.**
 Reliability-Based Optimization Considering Manufacturing and Operational Uncertainties, 36
- Suidan, Makram T.**
see Alonso, Cristina, 510
- Suk, Heejun**
see Lee, Kang-Kun, 498
- Suleiman, A. A.**
see Theegala, C. S., 1461
- Sullivan, George**
see Anderson, Stuart D., 950
- Sullivan, P. D.**
 Adsorption and Electrothermal Desorption of Hazardous Organic Vapors, 456
- Sumer, B. M.**
 Wave Scour around a Large Vertical Circular Cylinder, 1393
- Sumer, B. Mutlu**
 Scour around Pile in Combined Waves and Current, 705
 Suction Removal of Sediment from between Armor Blocks, 696
- Sumner, Harold**
see Omary, Mohammad, 877
- Sun, Darren Delai**
 Recovery and Marine Clay Stabilization of Heavy Metals Present in Spent Hydrotreating Catalysts, 544
- Sun, Hongbing**
 Case Study: Analysis and Forecasting of Salinity in Apalachicola Bay, Florida, Using Box-Jenkins ARIMA Models, 735
- Sun, J. H.**
see Hsu, C. T., 327
- Sun, Juanzhen**
see Yates, David, 804

Sun, Lu

Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index, 1313

Modeling Indirect Statistics of Surface Roughness, 1266

Sun, Xiaohong

see Nagarajaiah, Satish, 1193

Sun, Xiutang

see Li, Hongsheng, 135

Sun, Z.

see Jahani, F., 500

see Jahani, F., 501

Sung, Tommy

see Howard, Anthony, 1552

Suraji, Akhmad

Development of Causal Model of Construction Accident Causation, 251

Surampalli, R. Y.

see Blais, J. F., 1446

see Jillson, S. J., 1457

see Shen, S. B., 1460

Susheela, Narasimhan

Heat Pipe Augmented Passive Solar System for Heating of Buildings, 273

Suzuki, Kiichi

see Oda, Masanobu, 608

Suzuki, Masaki

see Shi, Zihai, 1195

Suzuki, Shuichi

see Kitagawa, Makoto, 105

Swendsen, I. A.

Experiments with Groups of Breaking Waves. Part I: Short Wave Motion, 1402

Swamee, Prabhata K.

Design of Minimum Seepage Loss Canal Sections with Drainage Layer at Shallow Depth, 895

Design of Minimum Seepage-Loss Non-polygonal Canal Sections, 871

Design of Sewer Line, 526

Optimal Design of Pumping Mains, 1287

Swamy, Narayan

see Mukhopadhyaya, Phalguni, 147

Swamy, R. N.

see Shattaf, N. R., 1017

see Spadea, G., 97

Swan, Christopher W.

see Palmquist, Shane M., 1018

Swan, Colby C.

see Seo, Young-Kyo, 610

see Silva, Marcelo A., 1177

Swanson, James A.

Stiffness Modeling of Bolted T-Stub Connection Components, 1130

Symans, M. D.

see Peterson, S. T., 1121

see Peterson, S. T., 1122

Syrmakezis, C. A.

Masonry Failure Criterion under Biaxial Stress State, 974

Szilagyi, Jozsef

Evapotranspiration Intensifies over the Conterminous United States, 1373

Identifying Cause of Declining Flows in the Republican River, 1363

Modeled Areal Evaporation Trends over the Conterminous United States, 882

Szpak, Janet

see Zavoda, Jennifer, 491

Tabachow, Ross M.

Nitric Oxide Emissions from Fertilized and Biosolids-Amended Soil, 493

see Jousset, Stéphane, 470

Tabatabai, Muna

see Tabsh, Sami W., 55

Taberner, V.

see Hassan, Y., 1291

Tabesh, A.

Pseudostatic Approach for Seismic Analysis of Single Piles, 638

Tabesh, M.

see Tanyimboh, T.T., 1359

Tabsh, Sami W.

Live Load Distribution in Girder Bridges Subject to Oversized Trucks, 55

Tada, Yoshiyuki

see Yamada, Seishi, 323

Tadeu, A. J. B.

see Reis, Maria de Lurdes B. C., 998

Tadi, Ramakrishna R., ed.

see Griebenow, Robert R., ed., 1598

Tagawa, Hiroyuki

see MacRae, Gregory A., 1129

Tagel-Din, Hatem

see Meguro, Kimiro, 1220

Tah, J. H. M.

Knowledge-Based Approach to Construction Project Risk Management, 192

Taiganidis, Ioannis

Required Stopping Sight Distance on Crest Vertical Curves, 1288

Taigbenu, A. E.

Unsaturated-Flow Simulation with Green Element Models, 697

Tait, C. J.

Review of Water Ingress Characteristic of Stressed Masonry, 1011

Takeuchi, Akiko

see Yamada, Seishi, 323

Takewaki, Izuru

Nonstationary Random Critical Excitation for Acceleration Response, 340

AUTHOR INDEX

Thampan

- Tam, C. M.**
Genetic Algorithm for Optimizing Supply Locations around Tower Crane, 248
see Chan, Albert P. C., 221
see Chan, Albert P. C., 945
- Tamaki, Tadatsugu**
see Peña-Mora, Feniosky, 953
- Tan, C.-A.**
see Pesterev, A. V., 307
- Tan, K. H.**
Direct Strut-and-Tie Model for Prestressed Deep Beams, 1194
see Tang, C. Y., 1209
see Tang, C. Y., 1210
see Toh, W. S., 1126
see Toh, W. S., 1167
- Tan, Lawrence**
see Jaselskis, Edward J., 215
- Tan, S. A.**
see Fwa, T. F., 1261
- Tan, Y. L.**
see Nataatmadja, A., 1311
- Tan, Yih-Chi**
see Chen, Jiann-Mou, 905
- Tan, Yih-Wann**
see Ling, Yean-Yng, 1068
- Tang, C. Y.**
Basis and Application of a Simple Interaction Formula for Steel Columns under Fire Conditions, 1209
Basis and Application of Simple Interaction Formula for Steel Frames under Fire Conditions, 1210
see Tan, K. H., 1194
- Tang, J.**
see Luo, Q. Z., 1213
- Tang, Man-Chung, P.E.**
A Grand New Bridge, 1486
- Tang, Wilson H.**
see Hu, W. C., 1252
see Ng, Charles W. W., 615
see Ng, Charles W. W., 631
see Zhang, Limin, 667
- Tang, Yi**
see Fu, Chung C., 283
- Tanyimboh, T.T.**
Appraisal of Source Head Methods for Calculating Reliability of Water Distribution Networks, 1359
- Tao, Fan**
see Hueckel, T., 655
- Tarantino, Angelo Marcello**
see Dezi, Luigino, 286
- Tariq, Ata-ur-Rehman**
Deflecting Velocity Rod for Flow Measurements in Small Channels, 898
- Tatalovich, Susan**
see Bhaduri, Budhendra, 1337
- Tavakkolizadeh, Mohammadreza**
Galvanic Corrosion of Carbon and Steel in Aggressive Environments, 165
- Tawfiq, Kamal**
Effect of Grouting Pressure in Posttensioned Bulbtee Girders, 78
- Tay, Joo Hwa**
see Sun, Darren Delai, 544
- Tay, Joo-Hwa**
Improved Anaerobic Degradation of Phenol with Supplemental Glucose, 435
see Lim, Teik-Thye, 496
- Tayfur, Gokmen**
Modeling Two-Dimensional Erosion Process Over Infiltrating Surfaces, 803
- Taylor, Craig E.**
Walkthrough Method for Catastrophe Decision Making, 1439
- Taylor, Don A.**
see Mailvaganam, Noel P., 1031
- Taylor, G.**
Empirical Method of Error Analysis in Volume Estimation: Monte Carlo Simulation under Kriging and Triangulation, 1247
- Taylor, John E.**
see Baker, Reda M., 991
- Tazi, Loubna M.**
see Collins, Michelle M., 471
- Teeter, Allen M.**
see Parchure, Trimbak M., 720
- Teh, Cee-Ing**
see Lim, Teik-Thye, 496
- Tekie, Paulos B.**
see Ellingwood, Bruce, 840
- Teng, J. G.**
see Chen, J. F., 1162
see Chen, S. F., 1150
see Lam, L., 167
see Shen, Hui-Shen, 326
see Zhang, J. W., 1117
see Zhao, Y., 421
- Teng, Zheng**
see Liu, Dingfang, 538
see Liu, Dingfang, 539
- Termaat, Ruud J., ed.**
see Hanson, James L., ed., 1605
- Teskey, W. F.**
Free Station Method of Leveling, 1244
- Tessier, M.**
see Johnson, P. A., 741
- Thackston, Edward L.**
Recalibration of a Reaeration Equation, 469
- Thampan, C. K. Prasad Varma**
System Reliability-Based Configuration Optimization of Trusses, 1180

Thanasekaran, K.

see Sivacoumar, R., 494

Theegala, C. S.

Phytoremediation Potential and Toxicity of Barium to Three Freshwater Microalgae: *Scenedesmus subspicatus*, *Selenastrum capricornutum*, and *Nannochloropsis* sp., 1461

Thibodeaux, K. G.

see Hubbard, E. F., 691

Thilakasiri, H. S.

Implementation Aid for Dynamic Replacement of Organic Soils with Sand, 573

Thoft-Christensen, Palle

see Huynh, Truc, 74

Thom, Nicholas H.

see Collop, Andrew C., 1262

Thomas, M. D. A.

see Pantazopoulou, S. J., 143

Thomas, R. Roosevelt, Jr.

Questions and Answers for Managers, 937

Thoms, Ian M.

Transporting Hong Kong, 1490

Thornburn, J., P.E.

Design Recommendations for Externally Restrained Highway Bridge Deck, 84

Thorpe, Tony

Project-Specific Web Sites: Friend or Foe?, 259

Thurnau, Robert C.

see Clark, Robert M., 490

Thurston, Howard M.

Full-Scale Load Test of a Sand-Jack, 1473

Tilley, William

see Khouri, Jeff, P.E., 1561

Ting, C. K.

Flume Tests for Scour in Clay at Circular Piers, 759

Ting, Ching-Jung

Control Alternatives at a Waterway Lock, 1389

Efficiency versus Fairness in Priority Control: Waterway Lock Case, 1388

Ting, F. C. K.

see Briaud, J. L., 581

Ting, Francis

see Briaud, Jean-Louis, 580

Ting, John M.

see Faraji, Susan, 612

Ting, S. K.

see Tang, C. Y., 1209

Tingle, Jeb S.

see Santoni, Rosa L., 593

Tiwari, Piyush

Energy Tax and Choice of House Construction Techniques in India, 847

Tod, I. C.

see Bali, K. M., 873

Todorovska, M. I.

see Trifunac, M. D., 1133

see Trifunac, M. D., 1132

Toh, W. S.

Fire Resistance of Steel Frames using Classical and Numerical Methods, 1167

Strength and Stability of Steel Frames in Fire: Rankine Approach, 1126

Toll, D. G.

see Malandraki, V., 596

Tomasetti, Richard L., P.E.

Concrete Delivers, 1536

Tomasko, David

Engineering Approach for Tier 2 RBCA Evaluations at NAPL-Contaminated Sites, 1370

Tommelein, I. D.

see Zouein, P. P., 224

Tong, K.

see Tan, K. H., 1194

Tong, Thomas K. L.

see Tam, C. M., 248

Tonietti, Ugo

see Bati, Silvia Briccoli, 426

Toole, T. Michael, P.E.

Technological Trajectories of Construction Innovation 50

Topper, Tim

see Masoud, Sobhy, 168

Topping, B. H. V.

Partitioning of Tall Buildings using Bubble Graph Representation, 193

Torbica, Zeljko M.

Customer Satisfaction in Home Building, 220

Torkamani, Morteza A. M.

Inelastic Large Deflection Modeling of Beam-Columns, 1172

Toshiro, Kamada

see Minoru, Kunieda, 980

Toth, Jack

see Wuttrich, Rafal, 1418

Townsend, F. C.

see Anderson, J. Brian, 654

Townsend, Frank

see Al-Yaqout, Anwar, 1441

Trifunac, M. D.

Apparent Periods of a Building. II: Time-Frequency Analysis, 1133

Trifunac, M. D.

Apparent Periods of a Building. I: Fourier Analysis, 1132

Tripllett, Eric J.

Shear Strength of HDPE Geomembrane/Geosynthetic Clay Liner Interfaces, 620

Trost, Steven M.

see Oberlender, Garold D., 231

AUTHOR INDEX

Valentine

- Tryland, Tore**
Effect of Material and Geometry Variations on Beam under Patch Loading, 1178
Finite-Element Modeling of Beams under Concentrated Loading, 1092
- Tryon, R.**
see Mahadevan, S., 33
- Tryon, Robert G.**
Mechanistic Model to Predict Statistical Scatter in Fatigue Response of Titanium Aluminide, 31
- Tsai, Ching-Nien**
Finite Fourier Probability Distribution and Applications, 826
- Tsai, Christina W-S.**
Linear Analysis of Shallow Water Wave Propagation in Open Channels, 332
- Tsao, Y. C.**
see Chen, Sheng-Jin, 1134
- Tseng, Chih-Ming**
see Shieh, Chjeng-Lun, 671
- Tseng, Ching-Liang**
see Yang, Ming, 1251
- Tseng, Ming-Hseng**
Channel Routing in Open-Channel Flows with Surges, 679
- Tseng, Ti-g-Ke**
see Chu, Hsin, 483
- Tsopelas, Panos**
see Constantinou, Michael C., 1083
- Tsou, Ming-Shu**
User Interface for Ground-Water Modeling: ArcView Extension, 802
- Tsuchida, Takashi**
Development of a Geomaterial from Dredged Bay Mud, 987
- Tsui, S. M.**
see Chu, W., 521
- Tsutsumi, Kazutoshi**
see Yamada, Seishi, 323
- Tucciarelli, T.**
see Noto, L., 703
- Tullis, Blake P.**
Real-World Projects Reinforce Fundamentals in the Classroom, 761
- Tullis, J. Paul**
see Tullis, Blake P., 761
- Tunick, Jill**
Small Business Report: The Home Advantage, 1506
- Turcotte, Richard**
see Fortin, Jean-Pierre, 784
see Fortin, Jean-Pierre, 785
- Tüzün, U.**
see Smith, L., 395
- Twu, Sheng-Wen**
Wave Damping Characteristics of Deeply Submerged Breakwaters, 1390
- Tyagi, Aditya**
Reliability, Risk, and Uncertainty Analysis Using Generic Expectation Functions, 547
- Tyagi, R. D.**
see Blais, J. F., 1446
see Shen, S. B., 1460
- Tyagi, Rajeswar D.**
see Zagury, Gérald J., 530
- Uang, Chia-Ming**
Cyclic Stability Criteria for Steel Moment Connections with Reduced Beam Section, 1188
Cyclic Testing of Steel Moment Connections Rehabilitated with RBS or Welded Haunch, 8
see Lee, Cheol-Ho, 1189
- Ueno, Katsutoshi**
Reappraisal of Size Effect of Bearing Capacity from Plastic Solution, 595
- Ugander, Pontus**
see Heyliger, Paul, 1014
- Uijtewaal, W. S. J.**
Exchange Processes between a River and Its Groyne Fields: Model Experiments, 755
- Ulm, Franz-Josef**
What is a 'Massive' Concrete Structure at Early Ages? Some Dimensional Arguments, 337
- Upadhyaya, A.**
Falling Water Tables in Horizontal/Sloping Aquifer, 906
Interaction of Stream and Sloping Aquifer Receiving Constant Recharge, 896
- Urban, A. L.**
Field Experiments to Determine Gas Transfer at Gated Sills, 747
- Urban Water Infrastructure Management Committee's Task Committee for Evaluating Best Management Practices**
A Guide for Best Management Practice (BMP) Selection in Urban Developed Areas, 1588
- Urbonas, Ben**
see Guo, James C. Y., 774
- Urbonas, Ben R.**
see Strecker, Eric, 1350
- Urmson, Chris**
see Whittaker, William, 23
- Usami, Tsutomu**
Seismic Design Method for Thin-Walled Steel Frame Structures, 1087
- Uy, Brian**
Local and Postlocal Buckling of Fabricated Steel and Composite Cross Sections, 1149
- Valdemarca, Maurizio**
see Valluzzi, Maria Rosa, 161
- Valeiras, B. Nora**
see Godoy, Luis A., 1060
- Valentine, E. M.**
see Novak, P., 764

Valeo, Caterina

Hortonian and Variable Source Area Modeling in Urbanizing Basins, 811

Valerio, Max E., P.E.

High-Performance Highway, 1483

Valiantzas, John D.

Optimal Furrow Design. I: Time of Advance Equation, 883

Optimal Furrow Design. II: Explicit Calculation of Design Variables, 884

Vallero, Daniel A.

Degradation and Migration of Vinclozolin in Sand and Soil, 549

Vallesquino, Pedro

New Algorithm for Hydraulic Calculation in Irrigation Laterals, 890

Valluzzi, Maria Rosa

Behavior of Brick Masonry Vaults Strengthened by FRP Laminates, 161

Van Benschoten, J. E.

see Gauguly, C., 9

Van der Put, John, P.E.

see Jergeas, George, P.E., 244

van Gelder, P. H. A. J. M.

see Pandey, M. D., 806

van Gent, Marcel R. A.

Wave Runup on Dikes with Shallow Foreshores, 1409

van Groesen, E.

see Westhuis, J., 1419

van Loosdrecht, Mark C. M.

see Hao, Xiaodi, 443

van Mazijk, A.

see Uijtewaald, W. S. J., 755

Vandevivere, Philippe

Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S.S]-EDDS, 529

VanGulck, J.

see Cooke, A. J., 647

Vanier, D. J. "Dana"

Why Industry Needs Asset Management Tools, 177

Varalakshmi, L. R.

see Mishra, P. K., 872

Varelas, D.

see Denarié, E., 335

Vatsala, A.

Elastoplastic Model for Cemented Soils, 633

Vaughan, Ronald L., Jr.

Operation of Full-Scale Oily Wastewater Treatment System, 1451

Vázquez, A.

see Andrade, C., 1009

Vecchio, F. J.

Disturbed Stress Field Model for Reinforced Concrete: Implementation, 1070

Disturbed Stress Field Model for Reinforced Concrete: Validation, 1112

Veeramony, J.

see Svendsen, I. A., 1402

Velickov, Slavco

see Dibike, Yonas B., 196

Venkataratnam, L.

see Khan, M. Q. I., 1368

Venkateshwarlu, E.

see Garg, N. K., 908

Venson, Anthony R.

Damage Quantification in Metal Matrix Composites, 311

Ventura, Carlos E.

see Horyna, Tomas, 63

Ventura, Francesca

Model for Estimating Evaporation and Transpiration from Row Crops, 901

Verstraete, W.

see Kalogo, Y., 452

Verstraete, Willy

see Vandevivere, Philippe, 529

Vesilind, P. Aarne

Engineering As Applied Social Science, 1067

Viadero, Roger C., Jr.

see Masciola, David A., 465

Viana da Fonseca, A.

Load Tests on Residual Soil and Settlement Prediction on Shallow Foundation, 649

Vicente, M. A.

see Iñigo, A. C., 989

Vicente-Tavera, S.

see Iñigo, A. C., 989

Vidyarathi, A. S.

see Blais, J. F., 1446

Vila, Xavier

see Serra, Teresa, 558

Vilagos, Jeffrey L.

see Mines, Richard O., Jr., 460

Villeneuve, Jean-Pierre

see Fortin, Jean-Pierre, 784

see Fortin, Jean-Pierre, 785

Vipulanandan, C., ed.

Expansive Clay Soils and Vegetative Influence on Shallow Foundations, 1583

Vipulanandar, Cumaraswamy

see Wang, Shyh-Yau, 522

Vismara, R.

see Azzellino, A., 556

Voeller, John, P.E.

25 Technologies to Watch, 1537

Voges, Lloyd Emil, P.E.

Use of Iron Oxides to Enhance Metal Removal in Crossflow Microfiltration, 480

AUTHOR INDEX

Warner

- Voice, Thomas C.
see Rakhshandehroo, G. Reza, 518
- Voyiadjis, George Z.
Multiscale Analysis of Multiple Damage Mechanisms
Coupled with Inelastic Behavior of Composite Materials, 351
- see* Haj-Ali, Rami, 362
- see* Kattan, Peter I., 386
- see* Venson, Anthony R., 311
- Vrijling, J. K.
see Pandey, M. D., 806
- Vyas, Praveen
see Sharma, Mukesh, 277
- Waas, Anthony M.
see Chung, Jaecung, 299
- Wahhab, Hamad I. Al-Abdul
Modeling Resilient Modulus and Temperature Correction for Saudi Roads, 1007
- Wahl, Tony L., P.E.
Hydraulic Performance of Coanda-Effect Screens, 712
- Wahlberg, E. J., P.E.
see Parker, D. S., P.E., 488
- Walesh, Stuart G., P.E.
Engineering Your Future, 1579
see Carr, Robert W., P.E., 1353
- Walker, Peter J.
Pullout Tests on Deformed and Plain Rebars in Cement-Stabilized Rammed Earth, 1006
- Wallace, Robert M.
Distributed System for Coastal Infrastructure Modeling and Assessment, 180
- Wallace, Roger B.
see Rakhshandehroo, G. Reza, 518
- Wallender, Wesley W.
see Purkey, David R., 854
see Purkey, David R., 888
- Wallis, Shania
Great Excavations, 1532
- Walsh, G.
see Hartman, A. M., 1302
- Walsh, Kenneth D.
State of Practice of Residential Floor Slab Flatness, 1047
- Walsh, Michael R., P.E.
Tunneling System for the South Pole, 142
- Walters, Richard W.
see Kim, Jeongkon, 504
- Wan, Ho S.
Environmental Factors Affecting Selenite Reduction by a Mixed Culture, 451
- Wan, Richard G.
Drained Cyclic Behavior of Sand with Fabric Dependence, 408
- Wan, Wang-Yue
see Cheung, Sai-On, 955
- Wang, C.
see Jahani, F., 500
see Jahani, F., 501
- Wang, C. M.
Axisymmetric Buckling of Reddy Circular Plates on Pasternak Foundation, 306
Bending Solutions of Axisymmetric Levinson Plates in Terms of Corresponding Kirchhoff Solutions, 428
- Wang, Chia-Yu "Eric"
see Ganeshan, Rajaram, 181
- Wang, James T. S.
Circular Bars under Distributed Torques, 15
- Wang, Jialai
see Qiao, Pizhong, 1100
- Wang, L. B.
Quantify Doublet Vector Distribution of Granular Materials, 360
- Wang, Peng
see Lau, Ivan W. C., 511
- Wang, Q.
see Wang, C. M., 306
- Wang, Qiong
Shear Banding in True Triaxial Tests and Its Effect on Failure in Sand, 365
see Lade, Poul V., 366
- Wang, Sam S. Y.
see Jia, Yafei, 688
- Wang, Shyh-Yau
Biodegradation of Naphthalene-Contaminated Soils in Slurry Bioreactors, 522
- Wang, Ton-Lo
see Liu, Chunhua, 80
- Wang, W. T.
Elastic Constants Identification of Shear Deformable Laminated Composite Plates, 409
- Wang, Wei
see Parvin, Azadeh, 159
- Wang, Y.
see Mahadevan, S., 33
- Wang, Y. C.
Response of RC T-Beams Strengthened for Flexure with Staggered CFRP Plates, 164
- Wang, Yang-Cheng
see Shu, Hung-Shan, 62
- Wang, Yu-Jie
see Yin, Jian-Hua, 661
- Wang, Zhonghui
Managing Design Changes for Multiview Models, 184
- Ward, Shane M.
see Owende, Philip M. O., 1286
- Warith, M. A.
Effect of Leachate Recirculation on Enhancement of Biological Degradation of Solid Waste: Case Study, 1445
- Warner, Thomas T.
see Yates, David, 804

Washington

Washington, Simon

see Molenaar, Keith, 12

Wassef, Nagib

see Hegazy, Tarek, 232

Watanabe, Fumio

see Assa, Beni, 1157

Watanabe, Fumio, Ph.D.

see Assa, Beni, Ph.D., 1158

Watanabe, T.

see Matsushima, H., 984

Watkins, David W., Jr., ed.

see Flug, Marshall, ed., 1620

Watson, Brian J.

Water Budget and Vertical Conductance for Magnolia Lake, 797

Watson, D. W.

see McCarter, W. J., 973

Watson, James N.

see Addison, Paul S., 285

Watson, Wade, P.E.

see Steinberg, Ari, P.E., 1528

Way, David W.

Space Transfer-Vehicle Concept for Deploying Solar-Power Satellites, 24

Weand, Barron L.

see Hauser, Victor L., P.E., 525

Weber, Larry J.

Experiments on Flow at a 90° Open-Channel Junction, 700

Webster, I. T.

see Condie, S. A., 695

Webster, Matthew T.

see Lochr, Raymond C., 1449

Webster, Steve L.

see Santoni, Rosa L., 593

see Santoni, Rosa L., 1265

Wehbe, Nadim I.

see Saaidi, M. Saaid, 77

Wei, Gengsheng

see Ting, C. K., 759

Wei, Yunmei

see Mirmiran, Amir, 293

Weiler, Kirk W.

see Scott, Christopher A., 865

Weiss, Peter T.

What Do Students Need in Hydraulic Design Projects?, 760

Wekezer, Jerry

see Wuttrich, Rafal, 1032

see Wuttrich, Rafal, 1418

Wekezer, Jerry, P.E.

see Wilson, Claudia Mara Dias, 1042

2001 ASCE TRANSACTIONS

Wen, Y. K.

Design Live Loads for Passenger Cars Parking Garages, 1104

Minimum Building Lifecycle Cost Design Criteria. I: Methodology, 1110

Minimum Building Lifecycle Cost Design Criteria. II: Applications, 1111

Weng, C. C.

Shear Strength of Concrete-Encased Composite Structural Members, 1207

Weng, Cheng-Chiang

see Lin, Jeng-Hsiang, 1314

Weng, Chih-Huang

Cr(VI) Adsorption onto Hydrated Concrete Particles from Groundwater, 569

see Lin, Deng-Fong, 545

Werner, Stuart D.

see Taylor, Craig E., 1439

Westhuis, J.

Experiments and Numerics of Bichromatic Wave Groups, 1419

Wey, Innho

see Lu, Chungshyng, 548

Wey, Ming-Yen

see Chen, Jyh-Cherng, Ph.D., 438

White, R. E.

see Ramasubramanian, M., 968

White, Timothy W.

Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading, 160

Whittaker, William

Robotic Assembly of Space Solar Power Facilities, 23

Whittemore, Donald O.

see Tsou, Ming-Shu, 802

Whittle, Andrew J.

see Sagaseta, César, 576

Widdowson, Mark A.

see Kirtland, Brian C., 446

Wiesner, Mark R.

see Sethi, Sandeep, 489

Wight, James K.

see Parra-Montesinos, Gustavo, 1069

Wight, R. G.

Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams, 166

Wilde, Krzysztof

Suppression of Bridge Flutter by Active Deck-Flaps Control System, 287

Willam, Kaspar

see Liebe, Tina, 348

Willford, Michael

see Dallard, Pat, 104

Williams, D. M.

Numerical Modeling of a Servohydraulic Testing System for Structures, 372

AUTHOR INDEX

Wu

- Williams, Gustavious P.
see Tomasko, David, 1370
- Williams, Gustavious Paul
Aerial Radiation Survey at Military Range, 1448
- Williams, Judsen M.
see Fridley, Kenneth J., 1120
- Williams, M. S.
see Williams, D. M., 372
- Williams, Trefor P., P.E.
see Kiwus, Christopher H., P.E., 960
- Williams, William O.
see Oppenheim, Irving J., 27
- Williamson, E. B.
see Dowd, J., 126
- Williamson, Eric B.
Nonlinear Dynamics of Harmonically Excited Inelastic
Inverted Pendulum, 284
- Wilson, Bruce G.
Modeling Municipal Solid Waste Collection Systems
Using Derived Probability Distributions. I: Model
Development, 559
Modeling Municipal Solid Waste Collection Systems
Using Derived Probability Distributions. II: Extensions
and Applications, 560
- Wilson, Claudia
see Wuttrich, Rafal, 1032
- Wilson, Claudia Mara Dias
Static Finite-Element Analysis of Bridge Fenders for
Barge Impact, 1042
- Wilson, Daniel W.
see Curras, Christina J., 624
- Wilson, Howard O., P.E.
Big Screen Debut, 1551
- Wilson, John T.
see Rifai, Hanadi S., P.E., 14
- Windom, James D.
see Hanson, Clayton L., 780
- Winfrey, Brandi
see Connor, Charles B., 1424
- Wingert, C. B.
see Hotchkiss, R. H., P.E., 857
- Winistorfer, Steve G.
see Rammer, Douglas R., 1124
- Wirahadikusumah, Reini
Challenging Issues in Modeling Deterioration of Combined
Sewers, 844
- Wissawapaisai, K.
see Chen, Roger H. L., 346
- Witter, Jonathan D.
Differential GPS Geometric Rectification of Fine-
Resolution Aircraft Scanner Data, 1246
- Wittmann, Folker H.
see Martinola, Giovanni, 983
- Woldt, W. E.
see Jillson, S. J., 1457
- Wollmann, Gregor P.
Preliminary Analysis of Suspension Bridges, 82
- Wolshon, Brian, P.E.
"One Way Out": Contraflow Freeway Operation for
Hurricane Evacuation, 1431
- Womack, Kevin C., P.E.
see Halling, Marvin W., P.E., 1090
- Wong, Clarence K.
see Ibbs, C. William, 958
- Wong, Ing Hieng
see Poh, Teoh Yaw, 668
- Wong, M. B.
Plastic Frame Analysis under Fire Conditions, 1105
- Wong, Ron Chik Kwong
see Gibb, Angela, 531
- Wong, Tommy S. W., P.E.
Formulas for Time of Travel in Channel with Upstream
Inflow, 820
- Wong, Y. L.
see Zhang, J. W., 1117
- Wood, S. L.
see Dowd, J., 126
- Woodruff, Paden
see Yazdani, Nur, 1030
- Woodside, Greg
see Gamlin, Jeff D., 450
- Wooldridge, Stephen C., P.E.
Effects of Accounting and Budgeting on Capital Allocation
for Infrastructure Projects, 951
- Work, P. A.
Mesoscale Model for Morphologic Change at Tidal
Inlets, 1412
- Wörman, Anders
Stochastic Analysis of Internal Erosion in Soil Structures—
Implications for Risk Assessments, 707
- Worthley, Thomas S.
see Klankrong, Thongchai, 1521
- Wright, Jeff R.
see Wallace, Robert M., 180
- Wright, Kenneth R., P.E.
Machu Picchu: A Civil Engineering Marvel, 1596
- Wright, Leonard T.
see Sample, David J., 1352
- Wright, S. A.
see Neary, V. S., 752
- Wrobel, John
see Williams, Gustavious Paul, 1448
- Wu, Baosheng
Choked Flows through Short Contractions, 728
- Wu, Chao-Hsiung
Thermal Treatment of Polyethylene in System Containing
Hydrogen Chloride, 439
- Wu, Cheng-Tang
Lagrangian Meshfree Formulation for Analysis of Geotechnical
Materials, 330

Wu, Chih-Ping

Elastic Buckling of Multilayered Anisotropic Conical Shells, 19

Wu, Ching

see Dunn, James, 1563

Wu, Chun-Yin

see Hsu, Tung-Wen, 1263

Wu, Cynthia

see Redon, Carl, 1019

Wu, D.

see Law, S. S., 415

Wu, George W. C.

see Shen, L. Y., 219

Wu, Jai-He

see Liang, Ming-Te, 851

Wu, Jerry J.

Mass Transfer of Ozone in Semibatch Stirred Reactor, 565

Wu, Jingning

see Chen, Genda, 1192

Wu, Joz

Local Height Determination Using GPS-Monitored Atmospheric Path Delays, 1242

Wu, Justin Y.-T.

see Sues, Robert H., 36

Wu, Jy S.

Reaction Kinetics of Immobilized-Cell Denitrification.

II: Experimental Study, 514

see Langley, William G., 513

Wu, Xiao-Han

Tendon Model for Nonlinear Analysis of Prestressed Concrete Structures, 1118

Wu, Yonghong

see Shen, Jie, 1331

Wu, Z. Y.

Competent Genetic-Evolutionary Optimization of Water Distribution Systems, 183

Wulf, William W.

Diversity in Engineering, 931

W. rbs, Ralph A.

Assessing Water Availability under a Water Rights Priority System, 1362

Wuttrich, Rafal

Performance Evaluation of Existing Bridge Fenders for Ship Impact, 1032

Retrofit Analysis of Bridge Fender Systems, 1418

Xia, Jiyang

Numerical Study on Flow over Buildings in Street Canyon, 475

Xia, L. P.

see Lam, K. M., 702

Xiang, Y.

see Wang, C. M., 306

Xiao, Yingcai

see Yi, Ping, P.E., 187

Xie, Chi

Calibration-Free Arterial Link Speed Estimation Model Using Loop Data, 1319

Xiu, Guohua

see Li, Ping, 519

Xiuqing, Zheng

Infiltration into Freezing and Thawing Soils under Differing Field Treatments, 880

Xu, Fei

see Sharma, Satish, 1308

Xu, Jizu

see Ding, Hongyan, 140

Xu, Joseph, P.E.

see Lee, Peter L., 1514

Xu, Shulan

see Worman, Anders, 707

Xu, X. Frank

Transverse Shear Stiffness of Composite Honeycomb Core with General Configuration, 412

Xu, Y. L.

Control of Wind-Excited Truss Tower using Semiactive Friction Damper, 1170

Xu, Z. X.

Markov Autocorrelation Pulse Model for Two Sites Daily Streamflow, 795

see Ito, K., 1366

Xu, Zongxue

Integrated Hydrologic Modeling and GIS in Water Resources Management, 197

Yacoubian, George S., Jr.

see Gerber, Jonathan K., 263

Yadav, Dayanand

see Singh, Bhriju N., 378

Yakel, Aaron J.

see Mans, Patrick, 123

Yalla, Swaroop K.

Dynamic Load Simulator: Development of a Prototype, 429

Yamada, Seishi

Imperfection-Sensitive Overall Buckling of Single-Layer Lattice Domes, 327

Yamamoto, Jerry A.

Monotonic and Cyclic Liquefaction of Very Loose Sands with High Silt Content, 598

Yamane, Nobuyuki

see Tsuchida, Takashi, 987

Yamazaki, Takefumi

see Kondoh, Munenobu, 75

Yamin, René A.

Comparison of Linear Scheduling Method (LSM) and Critical Path Method (CPM), 255

Yan, Yue-Gen

see Tay, Joo-Hwa, 435

Yanalak, M.

Transformation of Ellipsoid Heights to Local Leveling Heights, 1249

AUTHOR INDEX

Yoo

- Yang, B.
see Pesterev, A. V., 307
- Yang, Haitian
see Li, Hongsheng, 135
- Yang, Henry T. Y.
see Brown, Aaron S., 1095
- Yang, In Hwan
see Oh, Byung Hwan, 1198
- Yang, J.
see Shen, Hui-Shen, 326
- Yang, Kai-lin
Practical Method to Prevent Liquid-Column Separation, 724
- Yang, Min
Precipitative Removal of Fluoride from Electronics Wastewater, 542
- Yang, Ming
Establishment and Maintenance of Taiwan Geodetic Datum 1997, 1251
- Yang, Qing
see Morgan, Susan M., P.E., 1442
- Yang, Shin-Ching
see Cheng, Min-Yuan, 245
- Yang, Xiao Kuan
Comparison among Computer Packages in Providing Timing Plans for Iowa Arterial in Lawrence, Kansas, 1294
- Yang, Xiaoyun
see Lo, Irene M. C., 448
- Yang, Y. Jeffrey, P.E.
SVE Design: Mass Transfer Limitation Due to Molecular Diffusion, 10
- Yang, Yuqing
see Ariaratnam, Samuel T., 852
- Yang, Zhaowei
see Chien, Steven, 1278
- Yasui, M.
see Matsushima, H., 984
- Yates, David
Evaluation of Flash-Flood Discharge Forecasts in Complex Terrain using Forecast and Radar-Observed Precipitation, and the Impact of Wildfire Burn on Flood Severity, 804
- Yates, J. K.
Retention of Nontraditional Engineering and Construction Professionals, 946
- Yau, Terence L. Y.
see Ng, Charles W. W., 631
- Yau, Terrence L. Y.
see Ng, Charles W. W., 615
- Yazdani, Nur
Storm-Damaged Florida Coastal Foundations: Repair or Rebuild?, 1030
see Wuttrich, Rafal, 1032
see Wuttrich, Rafal, 1418
- Yazdani, Nur, P.E.
Preservative Effect on Stress-Laminated Southern Pine Bridge Decks, 72
see Wilson, Claudia Mara Dias, 1042
- Yazdani, S.
see Karnawat, Sunil, 279
- Ye, Shu-Lin
see Han, Jie, 625
- Yeap, Larry
see Pheng, Low Sui, 41
- Yeh, Harry
see Gardarsson, S., 308
- Yeh, Tzung-Yuh
see Cannon, Fred S., P.E., 517
- Yen, Ben C.
see Tsai, Christina W-S., 332
- Yen, Chen-yu, P.E.
see Gernand, Jeff, 1452
- Yen, S. I.
see Weng, C. C., 1207
- Yen, W. P.
see Park, S. W., 108
- Yeo, G. L.
see Wen, Y. K., 1104
- Yeung, Nicolas
see Cheng, Eddie W. L., 966
- Yeung, W. W.
see Shabayek, A. A., 1394
- Yi, Fu
Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers, 413
- Yi, Ping, P.E.
Rule-Based Model for Traffic Accident Visualization and Analysis, 187
- Yildirim, Nevzat
see Dönmez, Senayi, 272
- Yin, Jian-Hua
Influence of Nonassociativity on the Bearing Capacity of a Strip Footing, 661
see Zhu, J.-Gao, 381
- Yiu, Fong-Gee
see Wu, Joz, 1242
- Yoo, Chai H.
Stiffness Requirements for Longitudinally Stiffened Box-Girder Flanges, 1153
- Yoo, Chulsang
Climatological Thresholds of Daily Rainfall, 824
Land Cover Change and Its Impact on Soil-Moisture-Field Evolution, 823
- Yoo, Chungsik
Behavior of Braced and Anchored Walls in Soils Overlying Rock, 590
- Yoo, E. S.
Mechanism of Decolorization of Azo Dyes in Anaerobic Mixed Culture, 535

Yoon, Jae-Heung

An Improved Real-Coded GA for Groundwater
Bioremediation, 198

Yoon, Yong-Nam

see Yoo, Chulsang, 824

York, C. B.

see Huyton, P., 28

York, K.

Predicting Drag Coefficient of Pneumatic Capsule,
1304

Yost, Joseph R.

Shear Strength of Normal Strength Concrete Beams
Reinforced with Deformed GFRP Bars, 173

Yost, Joseph Robert

Strength and Serviceability of FRP Grid Reinforced
Bridge Decks, 124

Yost, Joseph Robert, P.E.

Flexural Performance of Concrete Beams Reinforced
with FRP Grids, 145

Yost, Sally L.

see Price, Cynthia B., 433

You, S. J.

Anoxic Biological Phosphorus Uptake/Release with
High/Low Intracellular Polymers, 534

Youd, T. L.

Liquefaction Resistance of Soils: Summary Report
from the 1996 NCEER and 1998 NCEER/NSF
Workshops on Evaluation of Liquefaction Resis-
tance of Soils, 597

Liquefaction Resistance of Soils: Summary Report
from the 1996 NCEER and 1998 NCEER/NSF
Workshops on Evaluation of Liquefaction Resis-
tance of Soils, 644

Young, Ben

Design of Cold-formed Channels Subjected to Web
Crippling, 1201

see Rasmussen, J. R., 1205

Yu, Daeyoung

see Seo, Il Won, 674

Yu, H. Q.

see Fang, Herbert H. P., 532

Yu, Hsin-Wan

see Hwang, Shyh-Jiann, 1074

Yu, Jyh-Yih

see Yang, Ming, 1251

Yu, M. H.

see Fang, D. P., 1226

see Fang, D. P., 1227

Yu, Qi-Song "Kent"

see Uang, Chia-Ming, 8

Yu, S. K.

see Chen, J. F., 402

see Soh, C. K., 404

Yu, Shaw L.

Field Test of Grassed-Swale Performance in Removing
Runoff Pollution, 1354

Yu, Wei-Wen

see Pan, Chi-Ling, 1102

Yu, Y. H.

see Chang, C. Y., 543

Yuichi, Uchida

see Minoru, Kunieda, 980

Yulianti, Jeanne S.

see Burn, Donald H., 1348

Zagona, Edith

see Eschenbach, Elizabeth A., 1347

Zagury, Gérald J.

Bioleaching of Metal-Contaminated Soil in Semicon-
tinuous Reactor, 530

Zammouri, Mounira

Case Study of Water Table Evaporation at Ichkeul
Marshes (Tunisia), 891

Zaneldin, Essam

Improving Design Coordination for Building Projects.
II: A Collaborative System, 250

see Hegazy, Tarek, 249

Zanganeh, M.

see Pantazopoulou, S. J., 1012

Zanuttigh, Barbara

Dam-Break Waves in Power-Law Channel Section,
699

Zararis, Prodromos D.

Diagonal Shear Failure and Size Effect in RC Beams
without Web Reinforcement, 1156

Zavoda, Jennifer

Uptake, Selectivity, and Inhibition of Hydroponic
Treatment of Contaminants, 491

Zayed, Tarek M.

Simulation as a Tool for Resource Management, 226

Zedler, Emily A.

Large-Eddy Simulation of Sediment Transport: Cur-
rents over Ripples, 708

Zegarra, Alfredo Valencia

see Wright, Kenneth R., P.E., 1596

Zeng, Huan

Generalized Bending of Shear-Deformable Plate with
Elastic Inclusion, 384

Zeng, Q. H.

see Law, S. S., 294

Zerihun, Dawit

Analysis and Design of Furrow Irrigation Systems, 878

Zetterstrom, Lars

see Burken, Joel G., 1458

Zhan, J. M.

see Li, Y. S., 1396

Zhang, Burong

Tensile Behavior of FRP Tendons for Prestressed
Ground Anchors, 152

Zhang, Donning

see Yi, Ping, P.E., 187

AUTHOR INDEX

Zisk

Zhang, J. W.

Behavior of Two-Way RC Slabs Externally Bonded with Steel Plate, 1117

Zhang, Jian

Rocking Response of Free-Standing Blocks under Cycloidal Pulses, 333

see Makris, Nicos, 334

Zhang, Jun

Influence of Supporting Base Characteristics on Shrinkage-Induced Stresses in Concrete Pavements, 1312

Influences of Fibers on Drying Shrinkage of Fiber-Reinforced Cementitious Composite, 282

Size-Effect on Fatigue in Bending of Concrete, 1026

Zhang, L. M.

see Ng, Charles W. W., 616

Zhang, Limin

Reliability of Axially Loaded Driven Pile Groups, 667

see Ng, Charles W. W., 630

Zhang, Q. W.

Finite-Element Model Updating for the Kap Shui Mun Cable-Stayed Bridge, 90

see Chang, C. C., 60

Zhang, Q. Y.

Hydraulic Characteristics of Multistage Orifice Tunnels, 729

see Gin, K. Y. H., 546

Zhang, Qizhi

Plant Uptake of Methyl tert-Butyl Ether (MTBE) from Ground Water, 1455

Zhang, Ruoxue

Fatigue Reliability Analysis using Nondestructive Inspection, 1181

Zhang, Tinggang

Numerical Methodology in Fatigue Analysis: Applications, 1260

Zhang, Tong

see Meng, Qingyuan, 324

Zhang, Xiaohui

Spatial Distribution of Extracellular Polymeric Substances in Biofilms, 536

Zhang, Xudong (David)

Out-of-Plane Performance of Reinforced Masonry Walls with Openings, 1075

Zhang, Xue-qing

BOT-Based Approaches to Infrastructure Development in China, 837

Hong Kong Experience in Managing BOT Projects, 229

Zhang, Xue-Qing

Procurement Protocols for Public-Private Partnered Projects, 252

Zhang, Yiguo

see Wallace, Robert M., 180

Zhang, Yu

see Yang, Min, 542

Zhang, Zhanming

see Sun, Lu, 1266

Zhao, Chen

see Ricles, James M., 1084

Zhao, Xianda

see Rakhshandehroo, G. Reza, 518

Zhao, Y.

Buckling Experiments on Cone-Cylinder Intersections under Internal Pressure, 421

Zhao, Zhiye

Preliminary Design System for Concrete Box Girder Bridges, 194

Zheng, Chuanchao

Pavement Design in Takalimakan Desert, 1267

Zheng, Yi

see Usami, Tsutomu, 1087

Zhong, Yu

see Shen, Hayley H., 1420

Zhou, Hongxun

see Hayden, Nancy J., 568

Zhou, Minggang

Asymmetric Low-Velocity Impact of a Finite Layer, 336

Zhou, S. P.

Global Stability Analysis for Bird-Shaped Girders, 1107

Zhou, W.

Statistical Analyses of Strength of Slender RC Columns, 1071

Zhou, Yin

Gust Loading Factor: New Model, 1091

Zhu, Fanyu

Scale Effect of Strip and Circular Footings Resting on a Dense Sand, 627

Zhu, Jun

see Ndegwa, Pius M., 567

Zhu, Jun-Gao

Deformation and Porewater Pressure Responses of Elastic Viscoplastic Soil, 381

Zhu, L. Y.

see Fwa, T. F., 1261

Zhu, Q. X.

see Law, S. S., 294

Zhu, Shutang

Analytical Study of Porous Wave Absorber, 316

Estimation of Laboratory Wave Reflection by a Transfer Function Method, 312

Zhu, Xueqing

see Alonso, Cristina, 510

Zhu, Yimin

Web-Based Construction Document Processing via a Malleable Frame, 191

Zimmer, D.

see Hartani, T., 855

Zisk, Burton, ed.

see Haimes, Yacov Y., ed., 1603

Zisk, Grace, ed.

see Haimes, Yacov Y, ed., 1603

Zito, Rich, P.E.

see Wilson, Howard O., P.E., 1551

Zmeureanu, R., P.E.

Measurements of Air Leakage through Revolving
Doors of Institutional Building, 53

Znidaric, Ales

see Deng, Linzhong, 89

Zouein, P. P.

Improvement Algorithm for Limited Space Scheduling,
224

Zundel, Alan K.

see Noman, Nawajish Sayeed, 1378

Zuquette, Lázaro Valentin

see Reckhorn, Sayonara Brederode Ferreira, 455

Zureick, Abdul-Hamid

see Haj-Ali, Rami, 361

